

JANUARY 4, 1954

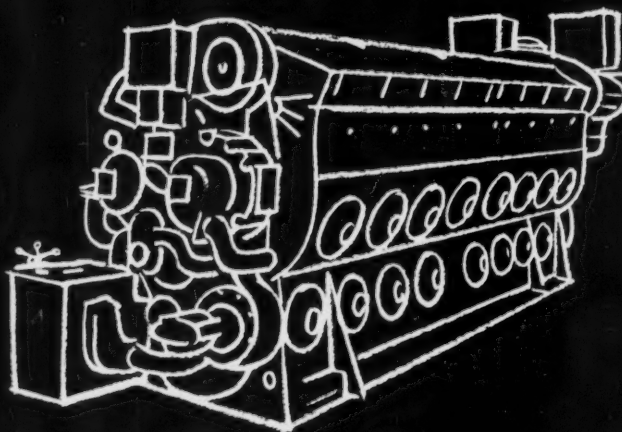
Why So Many Empty Car Miles? . . . p. 18

RAILWAY AGE

NEWS
ISSUE

The Standard Railroad WEEKLY for Almost a Century

Do you know that
in our NEW 567C engine
you get up to
17% more horsepower?



ELECTRO-MOTIVE DIVISION • GENERAL MOTORS

La Grange, Illinois • Home of the Diesel Locomotive • In Canada: GENERAL MOTORS DIESEL, LTD., London, Ontario

GENERAL MOTORS
LOCOMOTIVES



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Rain in the air means water on the rail . . . poor visibility and increased danger for all personnel. Rainy weather can also cause drive slippage on a motor car—unless it's equipped with a Fairbanks-Morse positive chain or vee-belt drive.

Positive drive . . . immediate reverse . . . four-wheel brakes . . . grouped controls . . . full visibility—in all weather. These are a few of the reasons why the Fairbanks-Morse Model 101 Motor car has won a reputation for safety—in all weather.

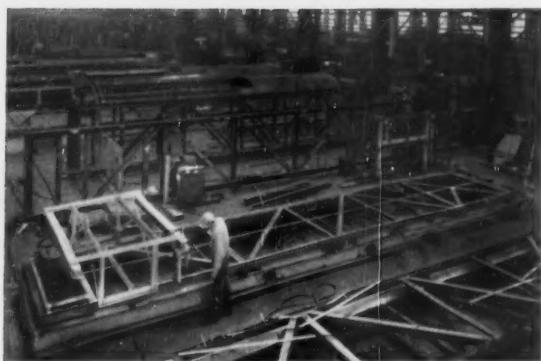
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DIESEL AND DUAL FUEL ENGINES • DIESEL LOCOMOTIVES • MAGNETOS



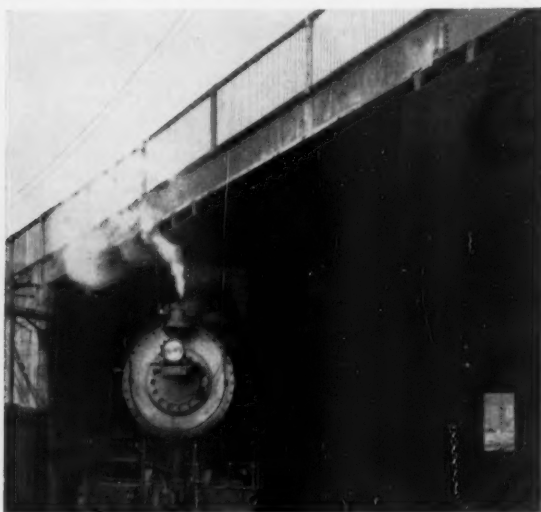
LOCOMOTIVES—Beams and angles of Mayari R add strength to this frame for a 1500-hp Diesel locomotive unit. Despite its special composition, Mayari R can be machined, welded and fabricated by ordinary methods.



BOX CARS—This 50-ton-capacity box car for a large Western road was built 10,000 lbs lighter than standard carbon steel types, because its sides and underframe were made of high-strength, low-alloy Mayari R.

How Railroads Benefit by Using Versatile Mayari R

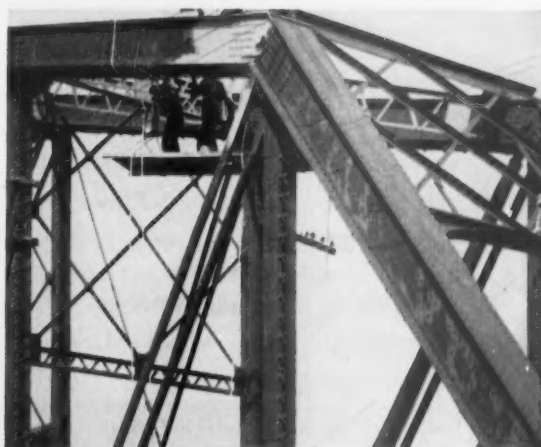
If your plans call for construction of new locomotives, rolling stock, bridges or other structures, bring Mayari R into the picture. You'll find helpful technical data and many interesting applications in our Catalog 259. A phone call or letter to our nearest sales office will start a copy on its way to you.



BLAST PLATES—Mayari R blast plates under this viaduct are only 15 ft above the railhead, yet have withstood the blasting effects of 105 trains daily for a ten-year period with no pitting, no loss of section.



PASSENGER CARS—Modernized for a Southern system, this coach contains many structural parts of Mayari R to combat severe corrosive conditions. Mayari R gives 5 to 6 times more protection against atmospheric corrosion than plain carbon steel.



BRIDGES—In addition to providing extra strength and corrosion-resistance for bridges, Mayari R holds paint up to 80 pct longer, cutting painting bills by as much as one-third.



HOPPER CARS—All plates in this hopper car which come in direct contact with the coal load are made of Mayari R to fight the corrosive action of wet coal dust and the abrasive action of sliding coal.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. Export Distributor: Bethlehem Steel Export Corporation



Mayari R *makes it lighter...stronger...longer lasting*

You can save over a minute
per mile
with "UNION" C.T.C.

*Here's the record**
ON ONE RAILROAD

1. Stops, slow-downs and delays reduced.
2. Average road time per freight train decreased 1 hour 45 minutes—or, an average of 1.07 minutes per freight train mile.
3. Cost of directing train movements reduced.
4. *Safety of train operation increased.*
5. Net annual saving in cost—\$88,333.00.
6. Annual return over 6% interest:

On Capital Investment	22.6%
On Total Cost	22.5%

**Additional factual data will be supplied on request.*

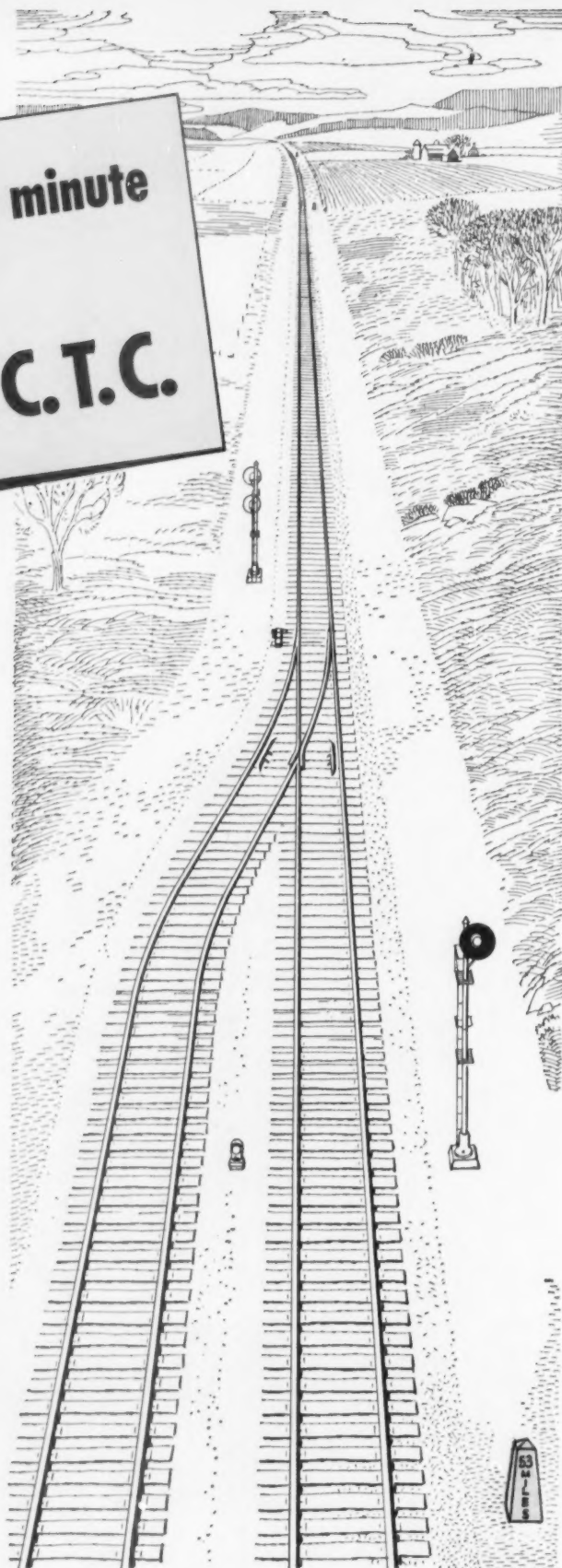
"UNION" Centralized Traffic Control can reduce terminal-to-terminal time with safety and pay its way through reductions in operating expenses. May we help you?

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DIVISION OF WESTINGHOUSE AIRBRAKE COMPANY

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January 4, 1954 NEWS ISSUE Vol. 136, No. 1

Week at a Glance

How 1951 traffic paid overhead costs is revealed in a recent study by an I.C.C. bureau. 9

The "non-ops" demand for larger "fringe benefits" has gone to a Presidential Emergency Board. Wage negotiations with other employee groups were generally recessed for the holidays. 9

FORUM: Getting the subsidies out of suburban service—to put the cost of such service where it properly belongs—might be accomplished by "contracts" between municipalities and railroads. 13

Why so many empty car miles? Answers to the November 23 car selection "quiz" confirm an opinion that many railroad men, while observant of car service rules, may not be equally alert to the desirability of avoiding empty mileage. The answer to the quiz, and comment concerning it, appear, respectively, on pages . . .

14 and 18

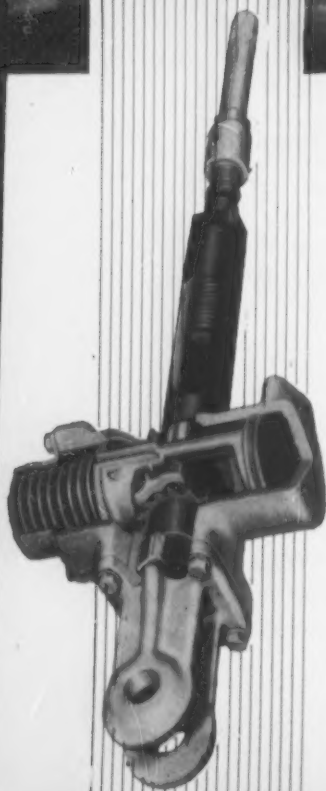
A way to prolong car-floor life is to resurface old wood floors with a nailable plastic compound. 20

Adjustable catenary structures have been developed in Great Britain. 22

Hard chrome plating is used by the N&W to prolong life and reduce maintenance of certain machine, locomotive and car parts. 23

BRIEFS

Confirming the observations in our December 14 issue (page 121) about expansion of trans-Lake Michigan gateway operations, the Chesapeake & Ohio announced on December 22 that it is "testing" improved services through its Wisconsin lake ports and the Niagara Frontier gateway to and from eastern points. After experience is gained with freight movement through the



How much money could you save if you didn't have to adjust the slack on each freight car manually?

● Every railroad man should find the answer to this question. If your potential savings are as great as we think they are, you may be able to save many thousands of dollars yearly with the Westinghouse Type D Pneumatic Automatic Slack Adjuster. Trains can be made up faster, put on the road faster, and yard congestion can be reduced.

The Type D slack adjuster is inserted between the cylinder lever and tie rod without the use of brackets or special mounting details. Installed in this manner

no manual adjustment is required for the entire life of the brake shoes, and train shocks cannot cause false take-up of slack.

This completely automatic, completely pneumatic slack adjuster precisely measures brake piston travel. It gives positive slack take-up as soon as brake cylinder piston travel exceeds a predetermined setting. It's a wonderful money-saving, time-saving investment for every railroad. Write to Westinghouse Air Brake Company for complete information.

Westinghouse Air Brake COMPANY

AIR BRAKE DIVISION



WILMERDING, PA.

Current Statistics

Operating revenues, ten months	
1953	\$ 9,016,553,959
1952	8,738,507,372
Operating expenses, ten months	
1953	\$ 6,780,942,483
1952	6,680,564,078
Taxes, ten months	
1953	\$ 1,085,573,098
1952	1,048,218,626
Net railway operating income, ten months	
1953	\$ 952,692,110
1952	856,877,240
Net income, estimated, ten months	
1953	\$ 740,000,000
1952	630,000,000
Average price railroad stocks	
December 28, 1953	57.55
December 29, 1952	69.32
Carloadings revenue freight	
Fifty-one weeks, 1953	37,821,784
Fifty-one weeks, 1952	37,464,455
Average daily freight car surplus	
Wk. ended December 12, 1953	76,333
Wk. ended December 13, 1952	16,392
Average daily freight car shortage	
Wk. ended December 12, 1953	163
Wk. ended December 13, 1952	709
Freight cars delivered	
November 1953	6,137
November 1952	5,929
Freight cars on order	
December 1, 1953	31,869
December 1, 1952	87,657
Freight cars held for repairs	
December 1, 1953	97,679
December 1, 1952	96,085
Average number of railroad employees	
Mid-November 1953	1,188,269
Mid-November 1952	1,238,777

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Week at a Glance CONTINUED

various improved facilities, a more definite statement will be made as to overall running time improvements, the road said.

India will buy 100 locomotives and 5,000 freight cars in the next few months. The United States will provide \$20 million of "economic aid" to help pay for the new rolling stock. Manufacturers from "most countries of the free world" are expected to bid for this business.

Passenger revenue continued to drop in the first nine months of 1953. Coach revenue was off 3.6 per cent from 1952. Parlor and sleeping car revenue was down 15.1 per cent.

Traffic fell even more. Coach passenger-miles were off 4.1 per cent compared with 1952. Sleeping and parlor car business slipped by 15.7 per cent.

Locomotive engineers "will not settle their just request for differentials paced according to skill, in nickels and dimes," Guy L. Brown, grand chief engineer of the Brotherhood of Locomotive Engineers, said in a year-end statement in which he described 1953 as "the most profitable year in modern American railroading."

A spokesman for the Greyhound Corporation confides that of all the recent developments in the railroad passenger field, he looks upon the new design of the Talgo train by American Car & Foundry "with the greatest fear." Citing the train's low gross weight per passenger seat, he said, "We would breathe much easier if we felt certain nobody would buy them."

"Like other industries which have built up their capacity to produce, the railroads will have to do some hard selling to fully utilize their facilities. . . . There will be greater emphasis on improving service and adjusting prices to stimulate sales and meet competition. Continued efforts will be made to produce additional operating economies. . . ."—From a year-end statement by Paul W. Johnston, president, Erie.



***"144,000 of our employees
are enrolled in the
Payroll Savings Plan"***

C. F. HOOD

President, United States Steel Corporation

"The response of our employees to the Payroll Savings Plan for U. S. Savings Bonds is dramatic evidence of their conviction that Freedom is Everybody's Job. We are proud of their outstanding record in saving systematically in "E" Bonds, in thus adding to their financial independence as they give effective support to the nation."

Mr. Hood and his associates may well be proud of the Steel Corporation's Payroll Savings figures:

- 144,000 men and women of U. S. Steel are enrolled in the Payroll Savings Plan—an over-all employee participation of 52%—excellent for a company as large as U. S. Steel.
- the average monthly investment of a U. S. Steel Payroll Saver is \$20.79.
- every month, these 144,000 employees invest \$2,993,760 in personal security—and America's economic stability.
- in some U. S. Steel plants and subsidiaries employee participation runs as high as 80%.

Nearly eight million men and women, in forty-five

thousand companies, large and small, are building personal security and contributing to national economic stability by their \$160,000,000 monthly investment in U. S. Savings Bonds. These Payroll Savers, with their \$25 and \$50 Bonds, are major shareholders in a huge reservoir of future purchasing power—the \$35.5 billion, cash value of Series E Bonds outstanding.

What is the employee participation in *your* Payroll Savings Plan? The average monthly deduction? How many employees have been *added* to your Payroll Savings Plan in the last year? Call for the figures and study them. Then, phone, wire or write to Savings Bond Division, U. S. Treasury Department, Washington Building, Washington, D. C. Your State Director will be glad to show you how easy it is to raise employee participation in your plan to 60%, 70%, or even better.

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RAILWAY AGE



How 1951 Traffic Paid Overhead Costs

I.C.C. bureau shows "Manufactures and Miscellaneous" traffic made largest contribution

The Manufactures and Miscellaneous commodity group in 1951 accounted for only 36.5 per cent of all carload revenue ton-miles, but contributed 67.1 per cent toward payment of the railroads' "overhead burden." This is shown in a study released late in December by the Bureau of Accounts and Cost Finding of the Interstate Commerce Commission.

The M. and M. group led all others as a contributor to 1951 overhead payments. Second largest contributor to the overhead fund was the Products of Mines group. Its contribution was 16.5 per cent although it accounted for 38.1 per cent of revenue ton-miles.

As to other commodity groups, Products of Agriculture contributed 10.3 per cent to overhead payments and accounted for 14 per cent of ton-miles; Products of Forests, 4.6 per cent and 9.2 per cent, respectively; and Animals

and Products, 1.5 per cent and 2.2 per cent.

Issued as Statement No. 7-53, the study is entitled, "Distribution of the Rail Revenue Contribution by Commodity Groups—1951." It carries the usual disclaimer to the effect that it was issued "as information," and "has not been considered or adopted" by the commission.

Purpose of the Study—The study is based on "the application of costs for the year 1951 to a one per cent waybill sample of carload traffic for that year." Its purpose is to provide a comparison of carload revenues and costs by commodity classes and groups; and it indicates generally, the extent by which revenue earned by each class or group exceeded the estimated out-of-pocket costs of handling the traffic.

That portion of 1951 traffic which was reflected in the one per cent way-

bill sample yielded revenues of \$77,300,000. This exceeded out-of-pocket costs by \$25,784,000. The latter figure, referred to as the "revenue contribution," compared with \$25,554,000 in 1950.

A table comparing revenues to out-of-pocket costs was contained in the study. It showed that each of the five commodity groups had 1951 revenues exceeding out-of-pocket costs. Best showing was by the M. and M. group, where revenues exceeded out-of-pocket costs by 80 per cent. For the other groups, revenues exceeded out-of-pocket costs by amounts ranging from 17 to 34 per cent.

Competitive Transport

I.C.C. Raps Driving Of Truck That Exploded

Reporting on its investigation of a motor carrier accident involving a vehicle loaded with explosives, the Interstate Commerce Commission said the driving practices revealed by its inquiry were "indefensible, particularly in view of the dangerous nature of the traffic transported."

The commission's report was by Commissioner Arpaia, and the vehicle involved in the accident was a tractor-semi-trailer combination operated by Watson Brothers Transportation Company of Omaha, Nebr. The commission recently instituted an investigation to determine whether Watson's practices warrant suspension or revocation of its certificates. Meanwhile, the Department of Defense has issued an embargo to bar use of Watson for shipments of its explosives.

The accident dealt with in the Arpaia report was a rear-end collision of the Watson vehicle with a private automobile. It occurred October 9 about five miles west of the Omaha city limits on U. S. Highway 275 and 30-A. Three occupants of the automobile were killed. The Watson driver survived, but he was seriously injured. The collision resulted in fire immediately, and subsequently came explosions of the ammunition loaded in the trailer.

The Driver—The Watson driver was identified as Lawrence Freeman Davis, 29 years old. He told commission investigators that his driving record included two 1953 arrests for speeding. The report also said that Davis had not made the written vehicle

"NON-OP" DISPUTE GOES TO EMERGENCY BOARD

President Eisenhower has created an emergency board to investigate the dispute resulting from the "fringe-benefit" demands of 15 unions representing railroad non-operating employees. The executive order was issued by the President on December 28 at Augusta, Ga., but members of the board were not named immediately.

No strike date had been set, but the National Mediation Board certified the case to the President on the basis of strike votes which authorized "non-op" leaders to order a walkout. The certification came after N.M.B. had failed to bring about a settlement in mediation proceedings which ended December 18.

The "non-op" demands call for improved vacation arrangements and premium pay for work on Sundays and holidays, a health-and-welfare plan, and liberalized and standardized free-pass arrangements. The emergency board was expected to get organized and have its hearings underway by the middle of this month.

Otherwise, the complex picture of railway labor negotiations remained a quiet one over the holidays. Most of the negotiations were recessed.

Here is a rundown on the status of other major cases at press time for this issue:

Brotherhood of Locomotive Firemen & Enginemen.—Negotiations recessed. They are expected to begin early in January, although no specific date has been set. Unconfirmed reports indicated that the carriers may have offered a settlement basically similar to that accepted by the Brotherhood of Railroad Trainmen (*Railway Age*, December 28, Page 11). So far, however, no outward developments have lent credence to these reports.

Order of Railway Conductors.—Carrier and brotherhood negotiators have jointly invoked services of the National Mediation Board (*Railway Age*, December 21, page 12) and the case will probably resume in Chicago on January 11.

Switchmen's Union of North America.—Negotiations recessed on December 17 to resume January 11 in Chicago.

Brotherhood of Locomotive Engineers.—National negotiations will begin in Chicago January 6. Mechanics of the negotiations were discussed at a preliminary meeting in Chicago early in December.

condition reports required by commission regulations, following trips he made October 7 and 8. The tractor and trailer were destroyed, so no inspection of them was possible after the accident.

"The evidence," the report also said, "indicates that Davis, driving a vehicle loaded with hazardous cargo, was operating his vehicle at an excessive rate of speed, considering the location and the traffic density on the highway, and that he persisted in driving too close to other vehicles."

The report closed with recommendations that the commission's rules governing the trucking of explosives be amended to accomplish these purposes: (1) Keep driving of vehicles loaded with explosives well within speed limits and as much below such limits as safe operation requires; (2) equip such vehicles with devices for recording speeds and duration of stops, with "more adequate" devices for the discovery and extinguishing of fire, and with "extra safeguards" to retard fire from reaching the cargo; and (3) establish more stringent standards for the selection of drivers entrusted with explosive cargoes.

Along with its order instituting investigation of Watson practices, the commission issued a notice revealing it had conferred with the Department of Defense with respect to "the problem of accidents which have occurred in the past year involving transportation of . . . ammunition and explosives." The notice added:

"Arrangements have been completed between both agencies to permit an immediate exchange of information when there is reason to believe that any carrier's practices in transportation of ammunition and explosives are unsafe.

"When such information indicates that a carrier's practices are unsafe, each agency will take such steps as are necessary to assure compliance with applicable laws and regulations by the responsible carrier. Such steps may include suspension of operating rights by the com-

mission, and, by the Department of Defense, curtailment or discontinuance of the use of the services of the carrier pending appropriate corrective action."

C.A.B. Refuses to Let "Non-Scheds" Carry Mail

The Civil Aeronautics Board has denied applications wherein several non-certificated air lines sought authority to participate in the movement of three-cent, first-class mail by air between New York and Chicago and Washington and Chicago.

The movement is the one-year experiment launched by the Post Office Department last October. The effect of the C.A.B. ruling is to leave all the business to the regularly scheduled, certificated air lines.

The board had previously decided it had authority, on proper findings, to grant applications like those now denied. (*Railway Age*, December 14, page 18.) Its present decision was based on findings to the effect that the applicants had not made showings required by the Civil Aeronautics Act.

Intercity Trucks Performed 200 Billion Ton-Miles in '53

All private and for-hire truckers performed about 200 billion ton-miles of intercity service in 1953, according to the year-end statement of Jack Cole, president of American Trucking Associations.

This was an increase of approximately 16 billion ton-miles above the 1952 performance, Mr. Cole said.

Like the year-end statements of his predecessors in the A.T.A. presidency, Mr. Cole's review included an estimate of the size of the trucking industry, such estimate including all trucking. On that basis, he found that the "industry" now employs about 6,773,000

persons, and that it is still the country's "second largest employer, topped only by agriculture."

As to for-hire truckers, reporting to the Interstate Commerce Commission, Mr. Cole said their 1953 gross amounted to about \$5 billion.

C.A.A. Chief Reports New Aviation Records in 1953

Civil aviation activities reached "new highs" during 1953, F. B. Lee, Civil Aeronautics Administrator, reported last week in a year-end statement.

Scheduled air carrier operations grew at a rate almost twice as fast as in 1952, Mr. Lee said. Revenue passengers on domestic lines increased from 25,019,742 to an estimated 29,223,000, a rise of 17 per cent. This compared with a 1951-52 gain of 9 per cent.

The safety record of domestically scheduled air carriers was not quite as good in 1953 as in the preceding year. Passenger fatalities per 100 million passenger-miles of domestic operations increased from 0.4 in 1952 to 0.6 in 1953, according to figures contained in Mr. Lee's statement.

Express and freight ton-miles of the scheduled domestic air lines increased 14 per cent in 1953, Mr. Lee reported. Omitting the all-cargo carriers, the air lines logged an estimated 183,978,000 ton-miles in 1953.

The C.A.A. administrator said there was "continued improvement" during 1953 in government-provided aids to navigation. These aids include such items as instrument landing systems, distance measuring equipment, and very high frequency omni-directional radio ranges.

People in the News

David George Named Arma Public Relations Director

David R. George has been appointed public relations director of Arma Corporation, a newly created post, at Roosevelt Field, Garden City, N. Y. Mr. George goes to Arma from the Long Island Transit Authority where he had been assistant to chairman for the past two years. From 1942 to 1951 he was publicity director of the Long Island, following nine years on the staff of the Brooklyn Eagle.

R. O. Boyd Appointed To Mediation Board

Robert O. Boyd has been appointed by President Eisenhower to membership on the National Mediation Board for the remainder of a term expiring

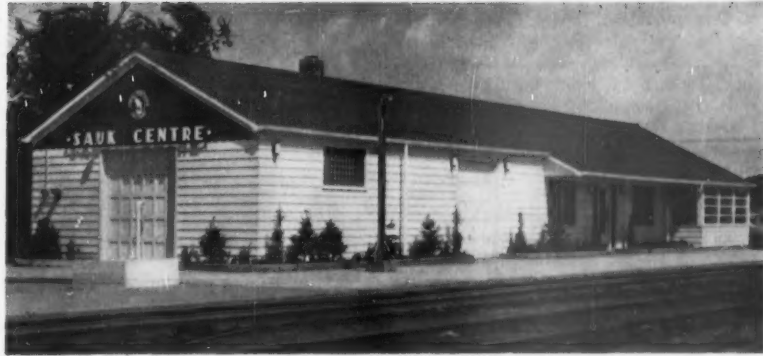


ANOTHER NEW HERALD.—Like the Milwaukee and the Duluth, South Shore & Atlantic (*Railway Age*, March 23, 1953, page 13), the Fort Dodge, Des Moines & Southern has redesigned its company herald. The purpose of the new one (shown at the right),



explains President Arthur P. Wheelock, is to spike a popular misconception that the road is merely a switching belt in the Fort Dodge area, while calling attention to the fact that it is one of the few north-south routes in the state of Iowa.

CONTRAST of evergreen planting against the white exterior walls of this new Great Northern station at Sauk Centre, Minn., gives the building a "well groomed" look. The 24-ft. by 100-ft. frame structure rests on a concrete foundation. The walls of the waiting room and ticket office are finished in knotty pine, and ceilings are equipped with white acoustic tile.



at the end of this month. He succeeds John Thad Scott, Jr., who resigned several months ago.

Mr. Boyd is an attorney of Portland, Ore., who has served on emergency boards in railroad and air line wage cases, and as referee for the National Railroad Adjustment Board's First and Third divisions. He is 50 years old.

His appointment must be submitted to the Senate for confirmation when Congress convenes this month. If the Senate acts favorably, his reappointment for a full three-year term, beginning February 1, is expected.

Operations

Car Service Orders

I.C.C. Service Order No. 869 has been modified by Amendment No. 10, which set back the expiration date from December 31, 1953, to May 31, 1954. The order imposes restrictions on use of refrigerator cars for commodities other than perishables.

I.C.C. Service Order No. 873 has been modified by Amendment No. 8, which set back the expiration date from December 31, 1953, to May 31, 1954. The order makes Richard H. Lambertson a commission agent with authority to control movements of tank cars.

Law and Regulation

I.C.C. Affirms Plan to Tie Frisco Trucks to Railroad

Affirming a 1951 determination of its Division 5, the Interstate Commerce Commission has ruled that the Frisco Transportation Company must get out of the "all-motor" business on truck routes covering more than 250 miles between points in Arkansas, Oklahoma, Texas, Missouri and Tennessee.

Frisco is a subsidiary of the St. Louis-

San Francisco, and the commission's ruling was in line with its policy of driving trucking affiliates of the railroads out of the all-motor business. Like Division 5's decision (*Railway Age*, November 12, 1951, page 12), the commission's present report found that the unconditional certificates now held by Frisco were issued "inadvertently."

Six Certificates Involved—Six certificates were involved in the proceeding—No. MC-89913 (Sub-No. 1) and related cases. They authorized Frisco operations over six routes. The railroad affiliate acquired the routes from independent operators several years ago.

The acquisitions were approved by the commission in reports which said the transactions would be subject to such limitations or restrictions as the commission might thereafter find it necessary to impose in order to insure that the trucking services would be auxiliary to train services of the parent railroad, and would not "unduly restrain competition." In only one of the six cases, however, was there a follow-through to include this reservation of authority in the order directing the issuance of the certificate or in the certificate itself.

The present commission decision found that the other five certificates were "inadvertently issued," and ordered four of them canceled to make way for substitute certificates containing the usual conditions designed to insure that the trucking operations shall become auxiliary to Frisco rail services. As to the fifth of these "inadvertently issued" certificates, the commission found special conditions calling for relief from such conditions.

As to the sixth certificate (which contained the reservation of power to impose conditions), the commission merely modified it to add the auxiliary-to-rail conditions.

Habitual Inadvertence—Commissioners Mitchell and Alldredge expressed disagreement with the majority's adoption of the "inadvertence" device. The former, in a dissenting opinion, pointed up his disagreement in this way:

"It is interesting to note, according to the majority, that we inadvertently issued five separate and distinct certi-

ates in five different proceedings. . . . If that be true, as the majority find, then some bureau of this commission was pretty careless. . . . The record, in my opinion, does not justify the finding of the majority."

Commissioner Alldredge, dissenting-in-part, suggested that the majority's position was "tenuous," but he was not of the opinion that nothing could be done. He would have proceeded under the Interstate Commerce Act's section 208 (a) which gives the commission general authority to attach, "from time to time," conditions to the "exercise of the privileges" granted by a certificate.

The dissents of Commissioners Mahaffie and Knudson were noted, as was the fact that Commissioner Tuggle did not participate. The majority ruling poses for court test a question which was not answered by the United States Supreme Court when it upheld commission decisions calculated to drive trucking affiliates of the Rock Island and Texas & Pacific out of the all-motor business. (*Railway Age*, March 5, 1951, page 64.)

In those cases reservations of commission authority were contained in all certificates involved. And the court said its ruling left "unanswered" the question of the power of the commission to modify a certificate "when no reservation . . . or restriction . . . has been placed in the order directing the issue of the certificate or the certificate itself."

Education

Northwestern University Forms Transport Center

A "national transportation center" has been established at Northwestern University.

A joint undertaking of the university's school of commerce, technological institute and traffic institute, it will carry on a program of research, and of undergraduate and graduate training in major problems affecting all forms

of transportation. Several other divisions of the university will participate in activities of the center from time to time. To help with both the formulation and direction of the new center, an advisory committee of business and professional men interested in transportation will be formed.

"Transportation is such a vital factor in modern living," commented university President J. Roscoe Miller, "that it seems desirable to expand the work of Northwestern University in this field. Because of its rapid development, transportation has become increasingly complex and has created many unsolved problems—economic, technical and social. We have already done a great deal of work in this field, and we believe that, with adequate support, we can make a substantially greater and more effective contribution through our new transportation center."

Initial direction and planning will be under a committee comprised of Stanley Berge, professor of transportation, and Leon A. Bosch, director of the graduate division—both of the School of Commerce; B. H. Jennings, chairman of mechanical engineering, and C. W. Muhlenbruch, professor of civil engineering—both of the Technological Institute; and G. W. Barton, traffic engineer, and F. M. Kreml, director—both of the Traffic Institute. Mr. Kreml will serve as chairman of the committee.

Overseas

Brazil, Chile to Buy RR Equipment

The International Bank for Reconstruction and Development has approved a loan of \$12,500,000 to the Central of Brazil for purchase of 100 electric passenger cars to be used on

... "FABWODI," the mystery word around which the Illinois Central built its 1952 campaign to promote employee suggestions, has earned for the road the 1953 Annual Promotion Award of the National Association of Suggestion Systems for the best suggestion campaign of all member companies. The mystery word was revealed to be an abbreviation of "Find A Better Way Of Doing It."

Rio de Janeiro suburban lines, and also for maintenance and repair of the suburban passenger system.

The Export-Import Bank has authorized a credit of approximately \$72,000 to assist the Electric Tampus Export Company, Chicago, in sale of track maintenance equipment to the Chilean State Railways. The export company will participate by retaining notes of \$98,400 for its own account.

Labor & Wages

Drop In Price Index Halts New Wage Hike

The Consumers' Price Index for November was down 0.4 of a point from the October level, with the result that railroad wages will not change on January 1.

The Bureau of Labor Statistics reported the November index as 115. This compared with the October index of 115.4, and was exactly the same as the index for last August, when the most recent escalator wage adjustment was made.

A drop in food prices during November was "mainly responsible" for the decrease in the price index, B.L.S. said. Had the November index re-

mained at the October level, railroad employees would have received a one-cent-per-hour wage boost as of January 1.

Organizations

A.S.T.&T. Names Goodyear To Succeed Earl B. Smith

Directors of the American Society of Traffic & Transportation have accepted the resignation of Earl B. Smith as executive vice-president. Mr. Smith recently took a leave of absence from his position as vice-president—traffic, of General Mills, Inc., to serve as director of transportation and communications for the Department of Defense (*Railway Age*, October 19, 1953, page 17).

C. J. Goodyear, traffic manager of the Philadelphia & Reading Coal & Iron Co., was elected to succeed Mr. Smith. At the same time, G. Lloyd Wilson, of the School of Business Administration of the University of Pennsylvania, who has served as the society's director of education, was elected vice-president.

The 1954 annual meeting of the society will be held in Washington, D.C. Directors also accepted the invitation of Donald K. David, dean of the Harvard University Graduate School of Business Administration, to hold the society's next conference and seminar at the university early in the fall of 1955.

Harold C. Mauney, vice-president of the Southern, has been elected director-general of the **Military Railway Service Veterans**, and F. W. Okie, president of the Union and the Bessemer & Lake Erie, has been elected secretary-treasurer.

At the recent annual meeting of the **Material Handling Institute**, Charles B. Elledge, manager of materials handling industries sales for General Electric Company, was elected president for 1954.

Nine papers on electrical engineering aspects of railroading will be presented during two sessions on land transportation at the winter general meeting of the **American Institute of Electrical Engineers** at the Hotel Statler, New York, January 18-22. Papers scheduled for the 9:30 a.m. session January 20 are: "Some Application Phases of the Ignitron Rectifier Locomotive on the Pennsylvania Railroad," by F. D. Brown, Westinghouse Electric Corporation; "Rectifier Motive Power—Inductive Coordination Considerations," by E. B. King, American Telephone & Telegraph Co., K. H. Gordon, Pennsylvania, and L. J. Hibbard, West- (Continued on page 26)



STEAM LOCOMOTIVE BELLS have found their way into churches almost the world over since the era of intensive dieselization got under way. But this veteran from a now-scraped Monon engine may be the only ex-locomotive bell that wound up in show business. It was presented to Indiana University by John Cole (left), trainmaster for the Chicago, Indianapolis & Louisville, and was accepted by Herbert Selz (right), who directs the university's radio and television activities.

Getting the Subsidies Out of Suburban Service

Most railroad people have such a vigorous and healthy antipathy toward subsidies—when derived from government—that they tend to dismiss the practice with very little detailed and critical observation. If they would devote greater attention to it, they would find that subsidies are by no means a simple question to which categorically correct answers are easy to come by.

The typical government subsidy is one given to producers for producing a product which they want to continue producing—e.g., the government's price supports for agricultural products. The government does not want the surplus products it purchases under this program—it buys them only to please the producers; and most producers actively favor this government aid. They do not, for instance, say: "We don't really want these price supports; we'd much prefer to quit raising this crop and raise some other one, but, if you insist that we raise more wheat or corn, then you'll have to see that we get more than the free-market price for doing so."

If government purchase of substantial ratios of the grain crop were carried on because the government wanted the grain—and not just to aid the farmer—then the present situation would be entirely reversed. Government purchases of grain could scarcely, then, be considered a subsidy at all.

Another example—if the government should pay more for synthetic rubber than the price of the natural product, because it wants to stimulate a domestic supply of rubber, would that action constitute a subsidy to the manufacturers of the synthetic product? Not so, in our opinion. The manufacturers who produce synthetic rubber would probably, just as soon, devote their productive capacity to other products—but they stand ready to produce synthetic rubber, if that's what the government wants and will pay the price.

There is a parallel between the government's attractive pricing of products it wants and the situation of communities which enjoy suburban service by the railroads. The railroads certainly do not insist upon staying in the suburban passenger business (as, on the contrary, the wheat farmer *does* want to stay in the wheat-raising business). So would there actually be any subsidy, in the true sense of the word, if railroads offering

suburban passenger service were to make some such proposal as the following?—

"We are in the suburban passenger business but we want to withdraw from it because we have found that we cannot make it pay expenses plus a fair profit—that is, not if we keep on conducting this business as we now conduct it, namely, through contracts with individual passengers. We are willing but not anxious to stay in this business, however, if those communities which want this service will contract with us to provide such schedules as they want, at a price sufficient to cover our expenses, plus a reasonable profit."

Would the offering of suburban passenger service on such a basis constitute a "subsidy" to the railroad? Not so, in our opinion. There are (or, at least, there have been) instances where local distribution of electric power has been in the hands of a municipality, but with the power supply purchased wholesale from a private utility company. In such cases does the price the municipality pays the utility for power constitute a "subsidy" to the power company? Not in this paper's opinion. And neither would it be a "subsidy" to a railroad if it should receive a fixed monthly sum from the municipality of Dudgeon Heights (or from some civic association in that municipality) for operating so many train schedules daily for that community.

The price for the individual rides which the municipality or civic association would collect from its citizens would be a matter of indifference to the railroad—just as charges by a municipal power system to its individual customers are a matter of indifference to the utility which supplies the power in wholesale quantities.

The fact of the matter is that railroad suburban service is being highly subsidized right now. The subsidy is coming (1) from the owners of railroad securities, (2) from the customers of long-haul passenger service, and (3) from patrons of railroad freight service. The principal beneficiaries of railroad suburban passenger services are (a) the "commuters" themselves, (b) real estate interests in suburban communities, and (c) all varieties of business in suburban areas. Only group (a) is now both paying and benefiting from the service. Groups (b) and (c) are benefiting heavily while paying nothing, while groups (1), (2) and (3) are paying heavily and not benefiting at all.

To assess the costs of this service where the benefits lie, and take them off of those who do not benefit, would be a step in the direction of economic progress.

Questions and Answers FOR THE TRANSPORTATION DEPARTMENT

Here are the answers to the November 23 car service "quiz":*

THE QUESTION:

The Baltimore & Ohio yardmaster at East St. Louis, Ill., had to furnish cars for a car-loading company's platform, to be loaded to the destinations and via the routes shown in the "Answer" column at the right. The yardmaster had the following suitable ownerships of empty box cars available for spotting to the platform: D&RGW; MP; NYC; D&H; WP; PRR; L&N; Rdg; NP; Sou; Erie; B&O; NH; C&O; SAL; UP; M&StL; CNJ; CB&Q; and RI. When the last car was spotted, the yardmaster was well satisfied with his work, for each car would be loaded in accordance with car service rules, and there would be no empty mileage involved in placing the cars on their owners' rails after they were released at destination. (We probably should have added "or at St. Louis.")

The question is: Which of the 20 cars did he use and to which destination did he card each of them?

THE ANSWER:

As of December 21, 31 out of 75 respondents had sent in the following correct answers. Their names are printed below the answers, and an explanation of the solution and a "critique" of the answers received is printed on pages 18 and 19 of this issue.

Point	Route	Proper Car
Pueblo, Colo.	B&O-MP	D&RGW
Billings, Mont.	B&O-CB&Q	NP
Butte, Mont.	B&O-CB&Q-NP	UP
Salt Lake City, Utah	B&O-RI-D&RGW	WP
St. Paul, Minn.	B&O-CB&Q	M&StL
Cincinnati, Ohio	B&O	C&O
Philadelphia, Pa.	B&O	Rdg
New York, N. Y.	B&O-Rdg-CNJ	NH
Albany, N. Y.	B&O-NYC	D&H
Bethlehem, Pa.	B&O-Rdg	CNJ
Richmond, Va.	B&O-C&O	SAL
Buffalo, N. Y.	B&O	Erie

The B&O, CB&Q, RI, L&N, MP, NYC, PRR and Sou cars were unused; they could all be delivered home to their owning road at St. Louis.

The "winners" were:

W. E. Back, accountant, Great Northern, Seattle;
G. W. Billmyer, Washington University, St. Louis;
E. A. Blair, supervisor stations & car service, Erie, Huntington, Ind.;
D. A. Boyette, assistant to freight traffic manager, Atlantic Coast Line, Wilmington, N.C.;
John Casey, Cambridge, Mass.;
K. R. Casford, freight traffic department, Santa Fe, Los Angeles;
J. E. Coakley, Pittsburgh;
J. C. Darwin, acting superintendent transportation, American Refrigerator Transit Company, St. Louis;
C. W. Doerr, Pittsburgh;

W. E. Fiscus, revising clerk, Santa Fe, Fontana, Cal.;
T. W. Flickinger, district manager, Car Service Division, Association of American Railroads, St. Louis;
A. P. Ford, agent, Southern, Culpeper, Va.;
Charles Goebel, joint agent, Santa Fe-Rock Island, Atchison, Kan.;
H. H. Harwood, Jr., Columbia University, New York;
W. E. Hatch, St. Albans, Vt.;
E. E. Hilligoss, Pennsylvania, Cincinnati;
R. A. Juneo, traveling agent, Chicago & North Western, Duluth;
H. F. Lauber, Jennings, Mo.;
R. N. Mathis, agent, ACL, Talladega, Ala.;
R. E. McMillan, car service agent, Chicago & Eastern Illinois, Chicago;
C. W. Moore, chief yard clerk, Missouri-Kansas-Texas, Smithville, Tex.;
F. W. Morning, car service agent, Car Service Division, A.A.R., Seattle;
A. P. Murphy, agent, Western Pacific, San Francisco;
J. P. O'Neill, cashier, Milwaukee, Yankton, S.D.;
M. W. Pegan, car accountant, Wabash, St. Louis;
I. E. Rackley, car distributor, ACL, Wilmington, N.C.;
J. P. Shuman, agent, Pennsylvania, Waynesboro, Pa.;
G. E. Spiese, office of superintendent freight transportation, New York Central, Cleveland;
A. F. Swinburne, executive assistant, Car Service Division, A.A.R., Washington, D.C.;
B. L. True, car service agent, Car Service Division, A.A.R., Portland, Ore.; and
P. S. Young, Jr., Chatham, N. J.
Congratulations to these 31 men, and better luck next time for the 44 others who didn't do the perfect job. We'll have another quiz one of these days; hope we'll get even more answers.—G. C. R.

CONDUCTED BY G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly news issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other depart-

ments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.

*See also pages 18 and 19.

What's New in Products



NEW 1½-CU. YD. CAPACITY Michigan Tractor Shovel, a product of Clark Equipment Company's Construction Machinery Division, designed as Model 125-A, has four-wheel drive with rear-wheel steering. The shovels are being produced in six different models.

noted as Model 125-A, has four-wheel drive with rear-wheel steering. The shovels are being produced in six different models.

New Line of Clark Tractor Shovels

Six models, from 15 cu. ft. to 2¼ cu. yd. capacity, are designed for bulk material handling

The Clark Equipment Company, Battle Creek, Mich., has announced production details of a completely new line of heavy equipment which is expected to have wide application in industries where the handling of bulk materials is essential. The new products consist of six separate models of a tractor shovel or "front-end loader," and will be marketed under the trade name "Michigan Tractor Shovel."

The new Michigan Tractor Shovel will be available for delivery in the spring.

The three major types in production are:

(1) Two-wheel drive with bucket-wheel drive and rear-wheel steering;

(2) Two-wheel drive with rear drive wheels and bucket-wheel steering; and

(3) Four-wheel drive with rear-wheel steering.

The equipment will be made at the outset in six models ranging in capacity from 15 cu. ft. to 2¼ cu. yds. Individual models and catalog designations are:

12-B—15 cu. ft. capacity, bucket drive, rear-wheel steering;

75-B—1 cu. yd. capacity, bucket drive, rear-wheel steering;

75-R—1 cu. yd. capacity, rear-wheel drive, bucket steering;

75-A—1 cu. yd. capacity, four-wheel drive, rear-wheel steering;

125-A—1½ cu. yd. capacity, four-wheel drive, rear-wheel steering; and

175-A—2¼ cu. yd. capacity, four-wheel drive, rear-wheel steering.

The tractor shovels will utilize a new transmission designed by Clark's Automotive Division at Jackson, Mich. The transmission, which incorporates a torque converter with a three-to-one torque multiplication factor, is a constant-mesh type with full-pressure lubrication. It is operated from two manual control levers on the steering column. Another lever emerging through the floor board controls the overdrive.

Among features and innovations of the new equipment listed by the manufacturer are the following:

(1) Clark will manufacture in its own plants almost all component parts used in the new line of tractor shovels. This has enabled Clark engineers to design the tractor shovels "as a unit" rather than as an assembly of component parts furnished by other suppliers.

(2) The design is predicated upon

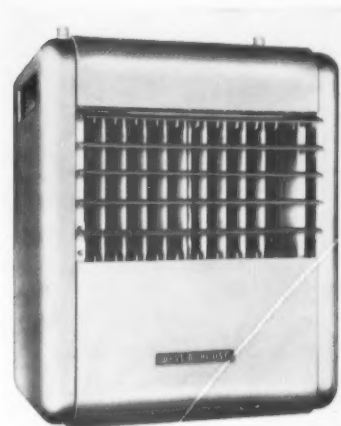
easy accessibility to all major components, any one of which may be removed in its entirety without removing other components.

(3) Based on rated capacity, each Michigan tractor shovel is heavier by weight and develops more horsepower than any other comparable equipment.

(4) Steering boosters are standard equipment on all models.

(5) The foot-operated conventional clutch has been eliminated.

(6) A system of planetary reduction of 3.2 to 1 in outer wheel hubs has been designed specifically for this new equipment. It results in a low torque load on axles and provides a particularly high factor of safety in design.



Gas-Fired Unit Heater

A new low-cost, ceiling suspended, gas-fired unit heater has been announced by the Westinghouse Electric Corporation, Air Conditioning Division, 200 Readville St., Hyde Park, Boston 30, Mass. It is fully automatic, operates independently of central system heating and needs only electrical, gas and flue connections to put it into operation. It can be used with all types of gases—natural, manufactured, or liquefied petroleum.

Maximum heat delivery at low noise level is provided by a slow speed motor and a quiet-operating fan. Heat exchanger tubes are constructed of corrosion-resisting aluminized steel and are designed to give maximum heat transfer with a minimum resistance to air flow.

The steel cabinet has a baked on, durable, gray-green enamel finish.

Adjustable louvers provide heat distribution patterns which can be altered to suit varying conditions of occupancy, or be set to permanently blanket drafty building openings. Seven sizes provide a full range of capacities from 25,000 to 200,000 B.t.u. per hour.

A toupé...



a tire...



and a

You know why a toupé costs so much. Because every hair must be matched and meticulously put in place by hand.

An automobile tire would cost much more than it does if it weren't for standardized sizes and the fabulous economies of mass production.

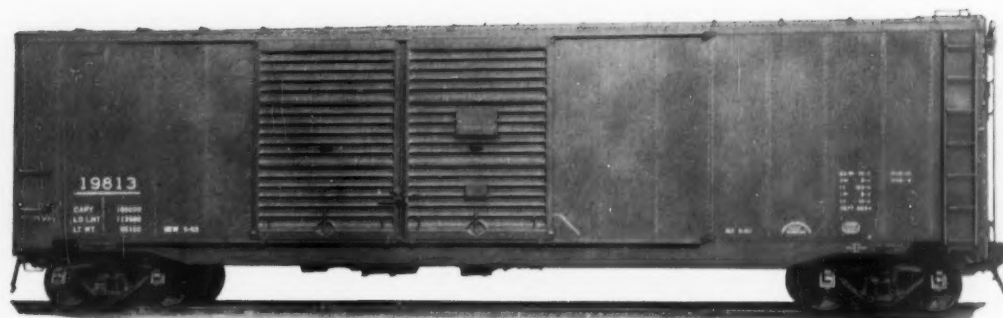
These same bargain economies are yours with A.C.F. Standardized Design box cars, hopper cars, gondolas, or most any kind of freight car that A.C.F. builds.

The moral of the story is: Plan your pur-

chases well in advance. You save money on each order. Your revenues increase because you have the equipment to handle new business. Your service to present customers is improved and your daily maintenance costs hit a new low with modern equipment.

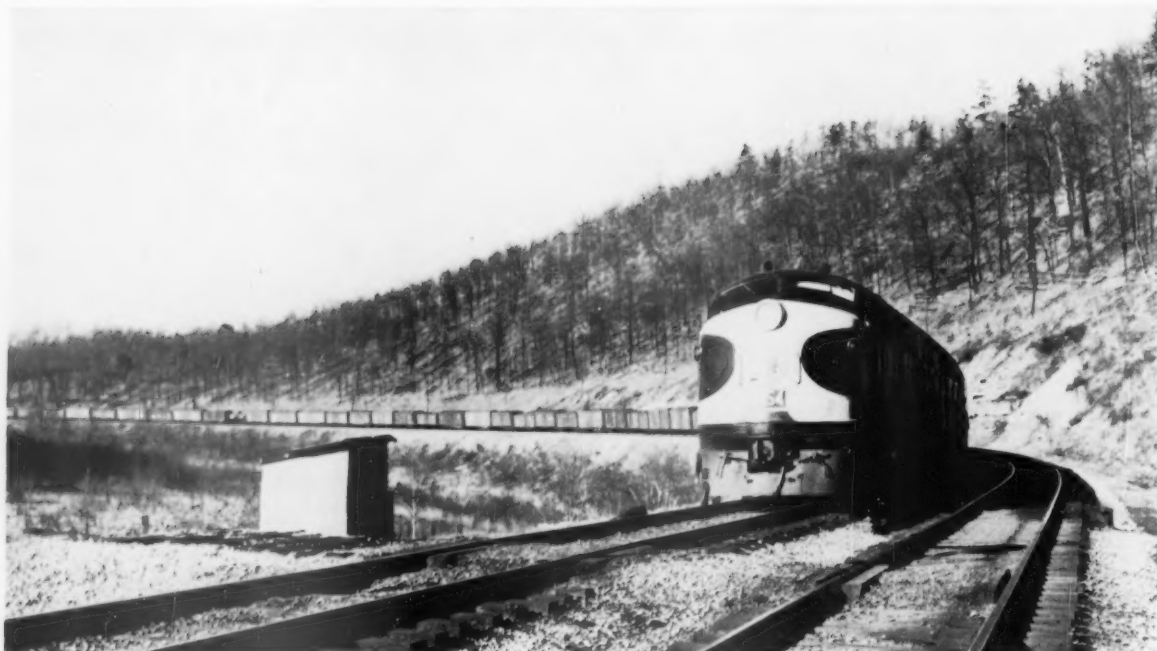
Fair enough? Then why not discuss your car purchasing program with an A.C.F. Representative. He can give you many interesting facts and figures. American Car and Foundry Company, New York • Chicago • St. Louis • Cleveland Philadelphia • Washington • San Francisco.

a moral about **FREIGHT CARS!**



a.c.f.

CAR BUILDERS TO AMERICA'S RAILROADS



HAULING EMPTIES costs \$.06 per mi., the railroads say. There is evidence that not enough attention is paid in some instances to eliminating it.

Why So Many Empty Car Miles?

Answers to *Railway Age* car selection "quiz" observed car service rules, but many appeared to forget that empty mileage costs money

By G. C. RANDALL

It is apparent that many railroad men who are consistently conscious of the importance of car service rules are not always equally alert to the desirability of selecting cars, where there is a choice, to avoid empty mileage wherever that is possible. That conclusion, formed during my years of experience on the railroads and with the Car Service Division of the Association of American Railroads is borne out by the answers submitted to the *Railway Age* "quiz" which appeared in the issue of November 23, 1953. (See also page 14 in this issue.) Many persons who sent in the 75 answers received observed car service rules in selecting equipment for loading but built up empty hauls as high as 2,500-3,500 miles in doing so. At today's rate of \$.06 per mile, that's \$150-\$210—nothing to be sneezed at. The persons "creating" so much empty mileage in the quiz answers were mostly people who have something to do with car handling and appreciate the desirability of avoiding empty mileage.

Most of the respondents to the quiz employed the cars used, technically, in accordance with the car service

rules, i.e., the owner was given a haul, or the cars terminated at a junction with the owner. However, rather to our surprise, many respondents did not catch the "joker" in the problem, i.e., that if the cars were utilized properly there would be no empty mileage in disposing of the cars used after they were again released as empties; or in disposing of those not used, at St. Louis.

Certainly, one of the problems of a yardmaster is to keep his yard fluid, which means that cars must be kept moving. They cannot be held until he has a chance to use them, particularly in a big terminal where the empties available usually exceed the demand for loading. It was important that our hypothetical B&O yardmaster in this problem quickly dispose of the eight surplus cars promptly. With the following applications, he protected the twelve loads, in accordance with the car service rules, and disposed of the eight surplus cars, *all* without empty mileage:

Destination	Car Used	Destination	Car Used
Pueblo	D&RGW	Philadelphia	Rdg
Billings	NP	New York	NH
Butte	UP	Albany	D&H
Salt Lake City	WP	Bethlehem	CNJ
St. Paul	M&StL	Richmond	SAL
Cincinnati	C&O	Buffalo	Erie

This left the following cars not used: B&O, CB&Q, RI,

Mr. Randall, retired district manager of the Car Service Division of the Association of American Railroads, conducts the "Questions and Answers" page which appears in alternate issues of *Railway Age*.

THIS WAS THE PROBLEM

The Baltimore & Ohio yardmaster at East St. Louis, Ill., had to furnish cars for a carloading company's platform. Loads to be placed in the cars would be destined to:

Point	Route
Pueblo Colo.	B&O-MP
Billings, Mont.	B&O-CB&Q
Butte, Mont.	B&O-CB&Q-NP
Salt Lake City, Utah	B&O-RI-D&RGW
St. Paul, Minn.	B&O-CB&Q
Cincinnati, Ohio	B&O
Philadelphia, Pa.	B&O
New York, N. Y.	B&O-Rdg-CNJ
Albany, N. Y.	B&O-NYC
Bethlehem, Pa.	B&O-Rdg
Richmond, Va.	B&O-C&O
Buffalo, N. Y.	B&O

The yardmaster had the following suitable ownerships of empty box cars available for spotting to the platform: D&RGW; MP; NYC; D&H; WP; PRR; L&N; Rdg; NP; Sou; Erie; B&O; NH; C&O; SAL; UP; M&StL; CNJ; CB&Q; and RI. When the last car was spotted, the yardmaster was well satisfied with his work, for each car would be loaded in accordance with car service rules, and there would be no empty mileage involved in placing the cars on their owners' rails after they were released at destination.

The question is: Which of the 20 cars available did he use and to which destination did he card each of them?

L&N, MP, NYC, PRR, and Sou. All of them could be delivered directly to the owning roads at St. Louis.

An analysis of the quiz answers shows that about 50 per cent of those sending in solutions recognized this phase of the problem. Thirty-one persons sent in correct answers and their names are published elsewhere in this issue. Other respondents came very close. For example, one railroad man from Chicago had but one wrong application. He set the Rock Island car in the St. Paul spot instead of the M&StL box, thus leaving the latter car to be disposed of empty from St. Louis. Four other persons had but two wrong applications each. Two of these men dispatched the CNJ car to Philadelphia and the Rdg car to Bethlehem, overlooking the fact that the CNJ car is not at home at Philadelphia. Reversing these assignments would have given these men a perfect score.

Another writer loaded the Southern car to Cincinnati and the PRR car to Philadelphia instead of the C&O and the Rdg, respectively. Of course, the first two are "home" at St. Louis while the latter two are not. The fourth man with but two wrong applications sent the NP car to Butte and the CB&Q car to Billings, thus leaving the UP car (Rule 3, to the B&O), for empty disposition from St. Louis. (Under the direct route plan the B&O would turn this car over to the Rock Island at Chicago.)

Those having five or more wrong applications obviously were of the group who did not take into consideration disposing of the eight surplus cars. Generally, they



THE PRACTICE of making switch engine foremen supply cars for outbound loading only from empties "made" in their district can contribute greatly to empty mileage.

loaded twelve of the 20 cars in accordance with the car service rules, but the empty mileage necessary to get their eight surplus cars home was considerable in each case. For example, one solution left at St. Louis the B&O, D&H, L&N, MP, M&StL, NH, RI, and SAL cars. About 2,500 empty miles would have accrued in getting the D&H, M&StL, NH, and SAL ownerships to home rails. Another answer left unused at St. Louis the cars belonging to the Erie, NH, PRR, Sou, SAL, RI, UP and WP. In this case, about 3,500 empty miles would have been necessary to place these cars on their owners' properties.

All of these examples emphasize the fact that mere technical observance of car service rules does not necessarily mean that the best and most economical use has been made of available equipment.

Obviously not all car supply situations will permit the complete elimination of empty mileage as did this theoretical one. Before long we hope to run on the *Railway Age* Question & Answer page another quiz in which the problem will be to minimize empty mileage. As a matter of fact, the November 23 quiz was prompted by the results of a great many checks made by the field forces of the Car Service Division of the A.A.R. These investigations have shown that at many heavy loading points, exact reversals of actual loadings made, for example, would have put cars much closer to their owners when empty than did the selections made by the local forces.

If empty mileage costs money, it would seem that better selection of cars designed to eliminate it could save the carriers considerable expense. An analysis of destinations of freight originating in each switch engine foreman's district of large terminals might bring to light means for furnishing empty cars which could be loaded in accordance with the rules. Such means would replace the currently rather general practice of having each engine foreman furnish cars for outward loading from empties "made" in the area in which his crew does the switching. Any engine foreman so limited in his supply of empties cannot help but give his "customers" many cars whose home roads are in a direction opposite to the one to which the load is destined. Under such conditions, in periods of car plenty, empty mileage naturally will be the result.



FIRST TROWELING OPERATION (left) and smooth finish of reinforced Plastinail floor (right) after final troweling.

How to Prolong Car-Floor Life

Resurfacing old wood decks with Plastinail assures three times the service life at two-thirds the cost of a new wood floor—Floors stronger; repairs easier

Old wood car decks, resurfaced with a $\frac{3}{4}$ -in. to 1-in. thick covering of reinforced Plastinail, are currently on test with about 30 railroads. Experience indicates that this new plastic freight car floor covering almost doubles the strength of the old floors and practically doubles their service life at not much more than two-thirds the cost of new wood floors.

Following tests covering a period of three years, one railroad is engaged in a continuing program of upgrading box cars by the use of Plastinail floor covering. Actual figures on this operation show a cost of \$207.76 for the $\frac{3}{4}$ -in. Plastinail floor covering in a 40-ft. 6-in. box car, as compared with \$285 for a new wood floor, including the floor clips.

Service experience shows that the plastic material, when fully set, has a density comparable to hard maple and is 100 per cent nailable. It is non-sparking, fireproof and may be troweled to a smooth dense surface which seals out moisture, prevents leakage of bulk lading and reduces damage claims (sometimes up to 40 per cent) by preventing abrasive damage to bags and cartons. It

has been found relatively easy and inexpensive to make repairs, since a new mixture of the plastic, applied by hand trowels to any defects or occasional chipping when nails are carelessly pulled out, may be readily used to fill the holes and bond firmly with the original material.

Method of Application

The Plastinail flooring mixture is prepared on a raised platform between two adjacent tracks in the car shop, a two-wheel dump cart being used to move the material from a $6\frac{1}{2}$ -cu. ft. electrically driven mixing machine to a car on either side of the platform, as desired. The crew consists of six men, two mixers and four trowelers, who resurface the old floors on three cars in an 8-hour day.

Box cars as received at the shops for heavy repairs are lined up on the two tracks adjoining the platform and all loose or broken floor boards are tightened or replaced. If side lining boards extend all the way to the floor, the bottom two or three boards on either side are removed so grain strips of the plastic may be applied. End linings are repaired or renewed, as required.

In further preparation of box cars for Plastinail application, the car floors are papered and wired. A 15-lb. saturated felt paper is laid and lapped over the old wood floor. This paper acts as a waterproof barrier and completely seals off the old surface. It prevents harmful chemicals, oils, or greases which may have been absorbed by the old wooden deck, or moisture from any source, penetrating the resurfacing material and thereby contaminating the lading.

A $1\frac{1}{2}$ -in. 17-gage key mesh wire is then put down over the paper and nailed on 6-in. centers. Large-head, $1\frac{1}{2}$ -in. roofing nails are used to give a strong mechanical connection. This wire reinforces the Plastinail and thus



WIRE MESH reinforcement is applied over felt paper. The plastic grain strip is applied first.

HOW PLASTINAIL is applied and leveled.



FINAL APPLICATION and leveling operation in a car doorway.

increases the strength of the floor. It also provides the bond between the Plastinail and the old wood deck. After these operations are completed, the car is ready for pouring.

At this stage, the cars do not have threshold plates and the three bottom side liner boards are off, to facilitate installation of the plastic deck and grain strips. At each doorway, a $\frac{3}{4}$ -in. steel threshold plate is welded in place. In subsequent pouring, the plastic flooring material is brought up to the level of these plates.

The centralized mixing arrangement utilized on one railroad greatly facilitates the pouring. By placing the mixing machine on the raised platform between two repair tracks, all work is done at floor level and it is possible to pour floors in two cars without moving them. The $6\frac{1}{2}$ -cu. ft. electric machine mixes enough Plastinail for a standard 40-ft. car in 30 min. In the pouring operation, the plastic mixture is poured into a two-wheel dump cart and wheeled into the car.

The proper thickness is obtained by means of a 3-in. by 4-in. angle, 9 ft. 2 in. long, which is equipped with two $\frac{3}{4}$ -in. shoes welded to the bottom 4-in. leg of the angle and riding on the wire mesh as this tool is moved back and forth over the plastic by means of two handles. The material is thus spread evenly to a thickness of $\frac{3}{4}$ in. over one end of the car floor, then the other end and finally the doorway section.

After the floors are leveled, the cars are moved down the tracks and the plastic is allowed two hours to dry

COST OF APPLYING $\frac{3}{4}$ -IN. LAYER OF PLASTINAIL OVER OLD WOOD FLOOR IN 40-FT. 6-IN. BOX CAR

Plastinail material (1,100 lb. per car)	\$120.00
Magnesium chloride	24.96
Wire mesh, $1\frac{1}{2}$ in., 17 gage	2.43
Felt paper, 15-lb., saturated .....	.97
Metal door strips, $\frac{3}{4}$ -in. steel	7.00
Wire nails, 12 $\frac{1}{2}$ lb.	1.86
Dextox paste, 19 qt. and powder, 1 lb.*	2.54
Total material	\$159.76
Labor cost	48.00
Grand total	\$207.76
Cost of new wood floor with clips	\$285.00

*Mix to make material adhere to steel

and set. In the first troweling by hand, small kneeling boards with $\frac{3}{4}$ -in. steel shoes are required, but in the two subsequent trowelings, kneeling boards without shoes may be used. Experience shows that the plastic floor material needs to be troweled three times in order to get the desired surface smoothness and finish.

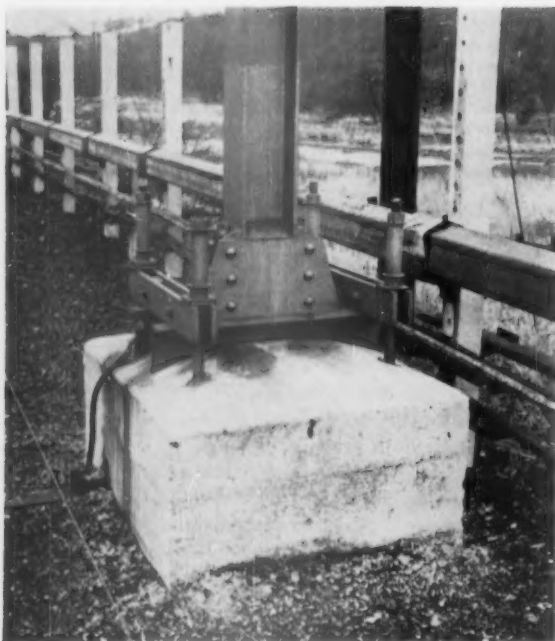
The total time required for application of Plastinail flooring in a 40-ft. 6-in. box car averages about 2 hr. 40 min., permitting an output of three cars a day with a 6-man crew. As soon as two cars are completed, two more are moved up in place ready for repetition of the pouring and finishing operations.



TYPICAL SECTION of overhead construction showing adjustable connections which allow for sinking of the roadbed.

BRITISH ENGINEERS DEVELOP . . .

Adjustable Catenary Structures



TYPE of vertical column base used with the portal type of catenary support.

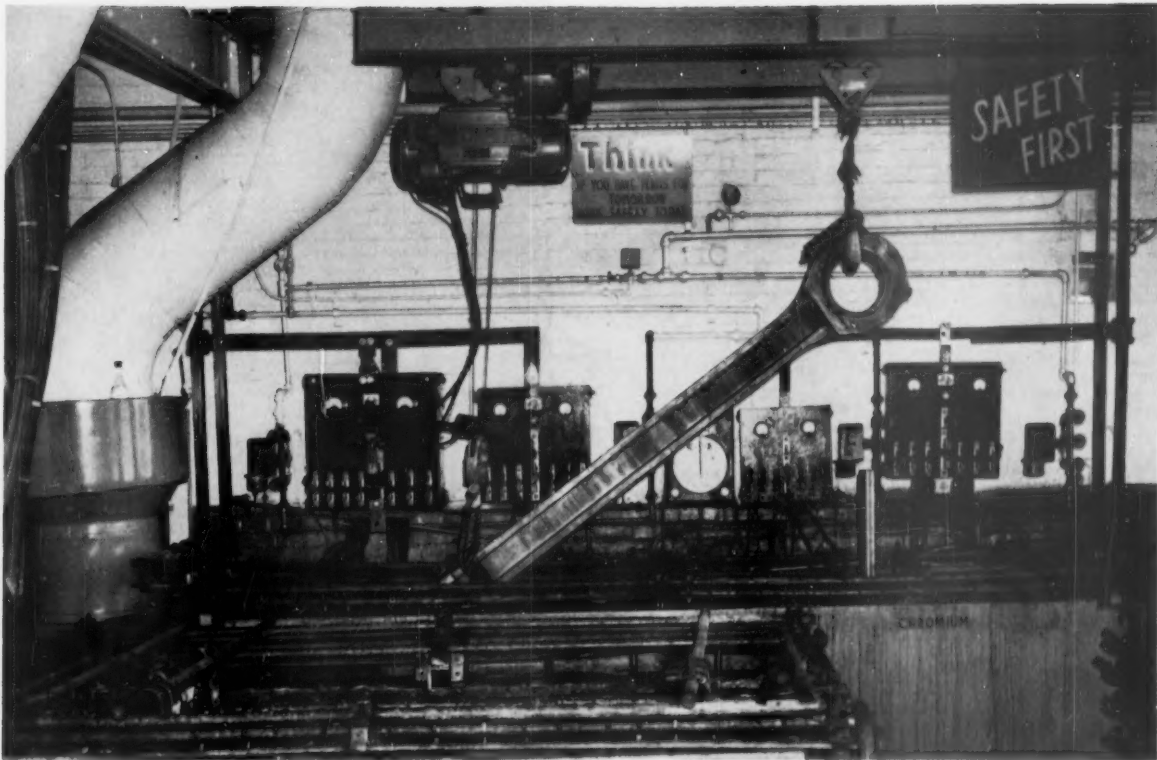
While there is little current interest in further heavy main-line electrification in this country, England is installing a new system under conditions involving unusual difficulties. Coal mines under the tracks in one area cause the right-of-way to sink and the catenary supports are designed so they may be adjusted to compensate for such "subsidence." The sinking may vary from 6 in. to 4 ft.

Various types of catenary supporting structures are used. The one shown in the illustrations is most common. It consists of portals constructed of H-beam sections. The cross member is welded to substantial gusset plates at each end, and the plates are secured to the vertical members or masts by clamping bolts.

After ground subsidence, the masts are replumbed by packing under the base. Additional lengths of holding-down bolts and distance pieces are provided for this purpose.

Where more than four tracks have to be spanned, the overhead wires are supported from a cross-catenary carried on fabricated towers.

The electrification is a 1,500-volt d.c. system which will include the main line between Manchester and Sheffield and a branch to Wath-on-Dearne. The sections now under construction, include 68 miles of route and 300 miles of track.



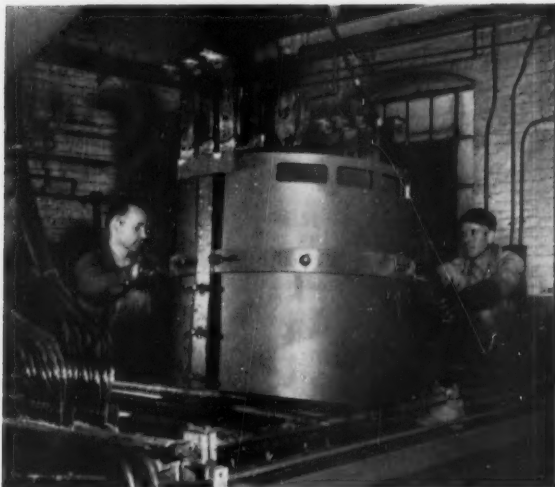
A LOCOMOTIVE MAIN ROD suspended with one end in the tank, being hard chrome plated on the lateral wearing surfaces. The large tank at the back is 154 in. long, 30 in. wide, and 36 in. deep, and holds 785 gal. of hard chrome solution. This solution at a tempera-

ture of 131 deg. F. and a current $3\frac{1}{2}$ amp. per sq. in. will deposit .001-in. thickness in 50 min. The tank in front is the new self-regulating chromium bath CR-130. This solution at a temperature of 118 deg. F. with a current $3\frac{1}{2}$ amp. per sq. in. will deposit .0015 in. in 50 min.

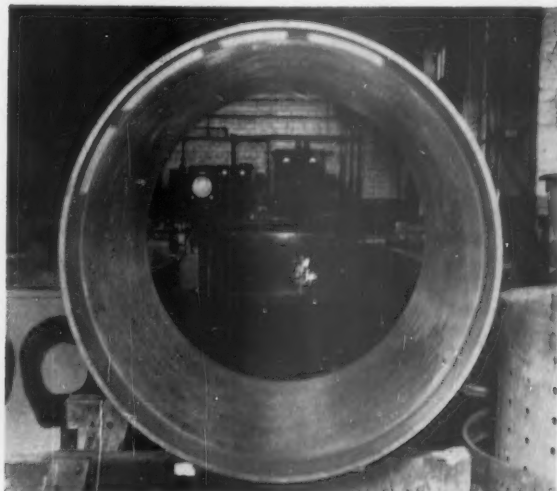
HOW THE N&W USES . . .

Hard Chrome Electroplating

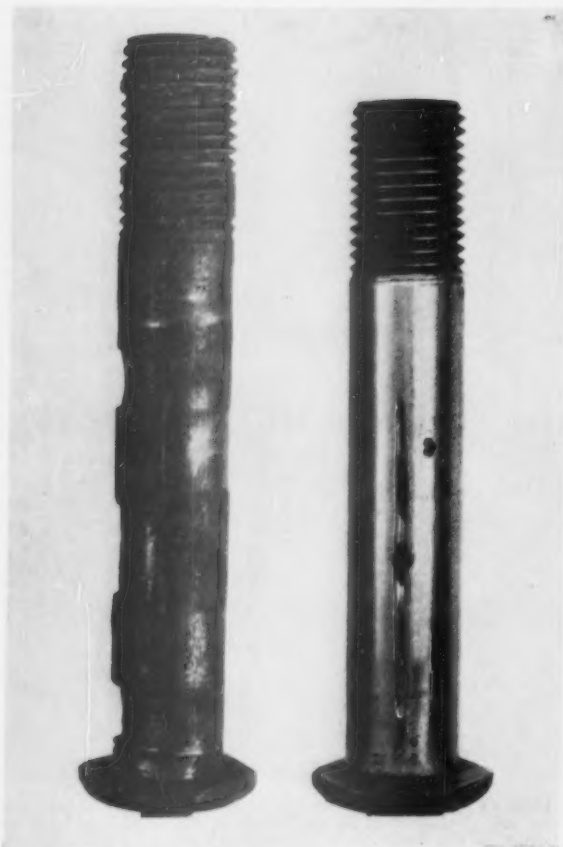
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LOW PRESSURE CYLINDER BUSHINGS, 39 in. inside diameter and 38½ in. long for 2-8-8-2 Mallet locomotives, are hard chrome plated on the inside diameter to give



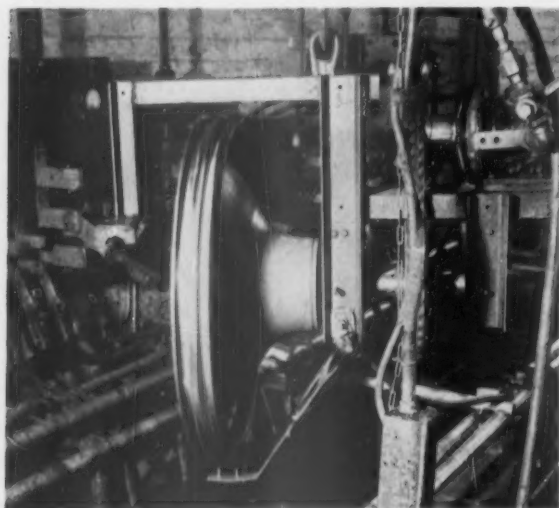
longer service life to the bushing and the piston packing. The picture at the left shows a bushing racked for plating; at the right is the inside of the bushing after plating.



BRAKE HEAD PINS (left) for passenger car truck. The pin at right is case-hardened and chrome plated, used without lubrication. It was removed from service for study after accumulating 789,000 miles. The remainder of the chrome plated pins in this truck are still in service, and are in good condition after more than a million miles.



The pin at left was case-hardened only, used with lubrication, and removed from service after accumulating only 163,000 miles. Right: Shown front to back, are centers for grinding machines, eccentric crank pins, and two valve stems (one racked for plating). Chrome plating has increased the life of these parts from four to five times.



A PISTON HEAD for a 4-8-4 streamlined passenger locomotive, N&W Class J. After becoming worn, the width of the grooves is brought back to standard by application of hard chrome plating. These piston heads are 26 $\frac{3}{4}$ in. outside diameter and the photograph shows the method of racking for plating. The rack is equipped with an air motor and the piston head revolves slowly in the plating solution to give an even plate; it is not ground later.

By T. R. BOGGESS

Gang Foreman, Norfolk & Western, Roanoke, Va.

The use of hard chrome electroplating by the Norfolk & Western on wearing surfaces of various parts for machines, locomotives and passenger cars results in great savings in both labor and material.

The saving in material is not always made by plating an entire part; sometimes, as in the case of an expensive gear, by plating the small wearing portion of the shaft, the whole gear can be reclaimed. Often the greatest saving is in the labor involved in renewing the part, as it is sometimes necessary to spend a great deal of time in dismantling and rebuilding in order to replace a part which is inexpensive in itself. Since the resistance to wear of plated parts is many times that of unplated parts, the comparatively small cost of plating is more than justified. Plated parts not only last much longer, but give higher efficiency during their lifetime than would be possible with unplated parts which wear more rapidly.

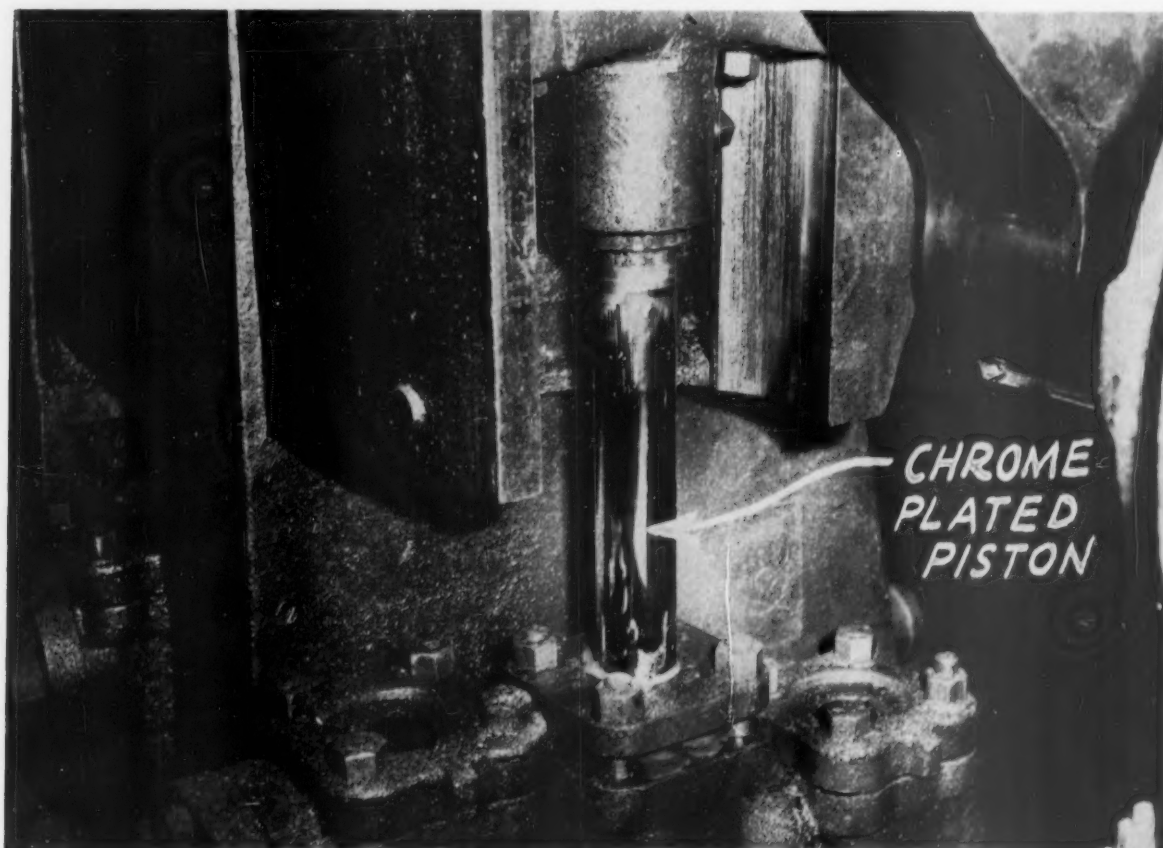
Some examples of the use of hard chrome electroplating are shown in the illustrations.



CRANK PIN ROLLER BEARING CUPS plated with hard chrome after a six-month test on a 4-8-4 streamlined passenger locomotive showed a wear of only .002 in. against a wear of .055 in. on unplated cups operated the same period of time on the opposite side of the same locomotive. The unplated cup required a sleeve to bring it back to contour, which costs several times more than plating,



and the plated one could still be used. The photograph on the left shows the unplated bearing as removed from the locomotive. The one on the right shows the bearing after having sleeve applied and chrome plated. By plating the bearing cups, maximum service life of the bearing is obtained with a minimum of maintenance. In addition, service life of rod bushings working thereon is increased.



A CHROME PLATED PISTON ROD on a hydraulic accumulator pump. Prior to application of chrome plated piston rods in September 1948, it was necessary to repack

piston glands every 30 days. Since that time they have not required repacking, thus eliminating a costly maintenance problem.

Organizations

(Continued from page 12)

inghouse Electric Corporation; "New Ignitron Multiple-Unit Car Equipment for the New Haven," by E. W. Ames, W. M. Hutchinson and V. A. Moore, Westinghouse Electric Corporation; and "A Reappraisal of the Economics of Railway Electrification—How, When and Where Can It Compete with the Diesel-Electric Locomotive," by H. F. Brown and R. L. Kimball, of Gibbs & Hill, Inc.

At the 2 p.m. session on the same day, these papers will be presented: "Fundamentals of Flashing of Diesel-Electric Motors and Generators," by C. A. Atwell, Westinghouse Electric Corporation; "Flashover of Diesel Traction Motors and Main Generators," by J. R. Schoonover, Lehigh Valley; "D. C. Machine Flashover Behavior," by O. C. Coho, Jr., General Electric Company; "Summary of Report on Diesel-Locomotive Flashovers," by W. B. Miller, Chicago & North Western, and "Static Excitation Control for Diesel-Electric Locomotives," by S. W. McElhenny and R. M. Smith, General Electric.

The annual dinner of the **Traffic Club of St. Louis** will be held January 12 at the Jefferson Hotel.

The **Mississippi Valley Maintenance of Way Club** will hold a regular dinner meeting at 6:30 p.m., January 11, at the Hotel De Soto, St. Louis. Speakers will be Hall E. Downey, advertising manager, General Railway Signal Company, on "Centralized Traffic Control"; and L. S. Werthmuller, retired signal engineer of the Missouri Pacific, on "Track Circuits."

A regular meeting of the **Eastern Car Foreman's Association**, and election of officers for 1954, will be held in the Engineering Societies building, New York, at 7:45 p.m., January 8. H. D. Hedges, general supervisor of safety, Baltimore & Ohio, Western region, will speak on "What Safety Means to Your Organization."

Equipment & Supplies

Domestic Equipment Orders Reported in December

Domestic orders for 133 diesel units and 550 freight-train cars were reported by individual purchaser in *Railway Age* in December. No passenger car orders were reported. Estimated cost of the diesel units is \$21,723,000, and of the freight-train cars, \$6,750,000. An accompanying table lists the orders in detail.

During 1953 *Railway Age* reported, by individual purchaser, domestic orders for 1,181 diesel units costing

Domestic Equipment Orders Reported in December

LOCOMOTIVES				Issue	Builder
Purchaser	No.	Type	Reported		
B&O	6	1,200-hp. Switching	Dec. 28	.....	Electro-Motive
CMS&P	19	1,750-hp. Rd.-Sw.	Dec. 7	.....	Electro-Motive
"	5	1,750-hp. "A" Frt.	Dec. 7	.....	Electro-Motive
"	6	1,200-hp. Switching	Dec. 7	.....	Electro-Motive
"	8	1,600-hp. Rd.-Sw.	Dec. 7	.....	American
"	5	1,000-hp. Switching	Dec. 7	.....	American
"	8	1,600-hp. Rd.-Sw.	Dec. 7	.....	Fairbanks, Morse
"	5	1,200-hp. Switching	Dec. 7	.....	Fairbanks, Morse
"	8	1,200-hp. Switching	Dec. 7	.....	Baldwin-Lima-Hamilton
GN	31	1,750-hp. Rd.-Sw.	Dec. 14	.....	Electro-Motive
"	6	1,750-hp. "B" Frt.	Dec. 14	.....	Electro-Motive
Virginian	19	2,400-hp. Gen. Purpose	Dec. 14	.....	Fairbanks, Morse
"	6	1,600-hp. Rd.-Sw.	Dec. 14	.....	Fairbanks, Morse
FREIGHT CARS					
Burlington Refrigerator					
Express	250	50-ton Refrigerator	Dec. 21	.....	Co. Shops
Western Fruit Express	250	50-ton Refrigerator	Dec. 21	.....	Co. Shops
"	50	70-ton Mech. Refrigerator	Dec. 21	.....	Co. Shops

an estimated \$187,810,000; 22,626 freight-train cars costing an estimated \$159,395,000; and 199 passenger-train cars costing an estimated \$33,854,484.

Detailed lists, by purchaser, of locomotive and car orders placed in this country and Canada during 1953, compiled from data submitted to *Railway Age* by purchasers and manufacturers of railroad equipment, will be published in the January 11 Review and Outlook issue.

LOCOMOTIVES

The **Union Pacific** will acquire 205 locomotive units from the Electro-Motive Division of General Motors



THIS ILLUMINATED SIGN—said to be one of the largest ever built—now advertises the Atlantic Coast Line at Port Tampa, Fla. Constructed by the General Outdoor Advertising Company, the sign is 387½ ft. long and 76 ft. high; it includes 175 tons of steel, 96 cu. yd. of concrete, 30,000 bolts, 3,000 ft. of neon tubing, and 69 transformer boxes. Letters, each 19½ ft. high and four ft. wide, are legible for more than two miles; they read "Atlantic Coast Line—Port Tampa Terminals." The sign is controlled by an astronomical clock which turns on the lights when it becomes dark, regardless of the hour.

Corporation. The total cost of the order is \$35,769,410. Delivery, expected to be complete by June of this year, will completely dieselize the UP's through main-line services from Omaha to the Pacific Coast, except to the extent that gas turbine-electric locomotives may be used. Deliveries are to begin immediately, with approximately 40 units scheduled to be on the property by the end of January. All the freight units are 1,750-hp. GP-9 general purpose locomotives; the passenger units are 2,400-hp. E-9—five "A" (cab) type and 10 "B" type.

IRON & STEEL

The **Texas & Pacific** has ordered, for its 1954 rail-laying program, 8,500 tons of 132-lb. rail to replace 112-lb. rail between Mineola, Tex., and Cobb, 36 miles. When the project is completed, the T&P will have a continuous stretch of 131- or 132-lb. rail on its main line from Texarkana to T&P Junction (near Dallas). In station areas at Mineola, Grand Saline and Wills Point, continuous welded rail will be laid in lengths varying up to 763 feet. The road's 1954 reballasting program includes replacement of gravel with crushed rock on 56.2 miles of line in Louisiana and 24 miles in Texas.

Supply Trade

J. MacInnes has been appointed assistant vice-president of the **International Equipment Company** and its subsidiary, the **Industrial Equipment Company**, Montreal. Mr. MacInnes for the past eight years had been with the **Superheater Company** at Montreal.

Donald O. Ross, sales engineer of the **Pullman-Standard Car Manufacturing Company** at Chicago, has been appointed eastern sales representative of the track equipment department at that point. **William Van**

FULLY TESTED HOT-BOX PREVENTION

NOW AVAILABLE



**A.S.R. APPROVED
FOR UNLIMITED
USE IN INTERCHANGE**

TEST REPORT FROM RAILWAY AGE May 4, 1953

The Plympak packing container was also subjected to extensive laboratory tests under which it demonstrated that it should produce considerable benefits in reducing hot boxes. Based on these laboratory tests, 3,000 70-ton hopper cars have been equipped with Plympaks. Experience to date has justified our confidence in the ability of this device to reduce hot boxes. From April 1952 through January 1953 the average percentage of our 70-ton hopper cars equipped with Plympaks has been 2.94, yet these cars have accounted for only 0.77 per cent of the hot boxes on 70-ton hopper cars. In other words, in the same service, cars without Plympaks account for approximately four times as many hot boxes per car as do cars equipped with Plympaks.

**COULD YOU ASK
FOR BETTER PROOF OF
HOT-BOX REDUCTION?**

PLYPAK WASTE CONTAINER & RETAINER

Hot-Boxes, due to lubrication failures, which occur so frequently in high-speed freight operation, can now be materially reduced.

Journal Lubrication has been the subject of years of research and testing in an endeavor to find a means of providing positive lubrication under all operating conditions.

This study resulted in the development of a new type waste-container and retainer, PLYPAK, which has been fully proven in more than three years of rigid service-testing. PLYPAK holds waste firmly and keeps it oil soaked with pumping action, performing this needed function without creating additional hazard. The resilient PLYPAK is an essential aid to proper lubrication.

To minimize hot-box hazards from lubrication failures, protect all journal packing with PLYPAK waste retainers.

Your inquiry is invited.

WAUGH EQUIPMENT COMPANY

420 LEXINGTON AVENUE, NEW YORK 17, N. Y.

CHICAGO — ST. LOUIS — CANADIAN WAUGH EQUIPMENT COMPANY, MONTREAL



J. M. TOUGH, who has been appointed sales manager of the Watson-Stillman Fittings division of H. K. Porter Company, with responsibility for all sales activities. He was previously Chicago district manager.

Der Sluys, assistant to manager of engineering design, has been advanced to manager of the design division.

The **Whiting Corporation** has assigned four additional sales engineers to district offices, as follows: **William C. Esch**, Cincinnati; **Paul Schnackenberg**, Houston; **Byron M. Hoskins**, Philadelphia; and **W. G. Rawson**, Seattle.

Richard P. Connette, assistant to president of the **American Car & Foundry Co.**, has been promoted to assistant vice-president.

Harold P. Gustavson, sales representative of the **Electro-Motive Division of General Motors Corporation** at New York, has been appointed district sales manager there, and **Robert B. Johnstone**, assistant regional service manager, has been pro-



R. B. SAYRE, assistant vice-president of **Graybar Electric Company**, who has been elected vice-president, at New York.

moted to sales representative at New York.

Clarence E. Killebrew has been elected vice-president of **Clark Equipment Company**, in charge of sales and marketing of all products sold under the "Michigan" trade name. He was formerly manager for marketing and sales in Clark's Construction Machinery division.

Arch R. Smith has been named vice-president and general manager of the Grand Rapids branch of **Frank Colker Company**, Detroit distributors for **Towmotor Corporation**. He was previously executive vice-president and general sales manager of **Ready-Power Company**.

Abandonments

Authorizations

CHICAGO, ROCK ISLAND & PACIFIC.—To abandon a 5.6-mile segment of branch line, from Oakland, Iowa, to Carson. The volume of traffic does not warrant spending the money required for rehabilitation of the line, Division 4 said.

GREAT NORTHERN.—To abandon an 8.3-mile segment of branch line, extending from a point known as Lavin Spur, Mont., to Griffen. The line was damaged by floods in June 1953, and Division 4 said very little traffic could be expected to move over the line if it were rehabilitated.

JOPLIN-PITTSBURG.—To abandon its entire line, extending approximately 25 miles from a point near Pittsburg, Kan., to Waco, Mo. The line served a coal mine and a gravel plant, both of which have been abandoned.

PENNSYLVANIA-READING SEASHORE LINES.—To abandon the Stone Harbor branch, from Cape May Court House to Stone Harbor, in Cape May county, N. J. The line is 3.7 miles long.

READING.—To abandon a 0.5-mile portion of its so-called Pickering Valley branch near Kimberton, Pa. No traffic has been handled on the segment in the past two years.

Financial

Hartford & Slocomb.—*Trackage Rights*.—This road has asked the I.C.C. for authority to acquire trackage rights over approximately three miles of the Central of Georgia at Dothan, Ala. The H&S would pay rental of \$100 a month for the segment, which it says is necessary for its operations in Dothan.

Meanwhile, still pending before the I.C.C. is the H&S application for authority to issue 750 shares of common stock. Sale of this stock, plus a note for \$25,000, would provide funds with which the road could purchase a segment of CofG trackage extending from Dothan to Hartford. This segment would constitute the main line of the H&S.

St. Louis Southwestern.—*Lease of Texas Subsidiary*.—Division 4 of the I.C.C. has authorized this road to lease and operate all properties of its wholly

owned subsidiary, the St. Louis Southwestern of Texas (*Railway Age*, May 18, 1953, page 191). The Texas company is an integral part of the Cotton Belt system, and the new lease arrangement, by reducing office space and personnel, will save the system an estimated \$315,000 annually. The Cotton Belt will construct a new office building at Tyler, Tex., to house personnel already located in that city as well as other forces to be transferred there from present headquarters at St. Louis, Mo.

The lease runs to July 1, 1990. One purpose of the new arrangement is to eliminate intercompany accounting and to simplify accounting with other railroads. The lease will result in organizational changes, including the transfer of several officers and employees. The unified accounting department will be located at Tyler, as will the treasury and industrial departments. A major portion of the legal and traffic departments also will move from St. Louis to Tyler. About 56 system officers and employees will be retained at St. Louis out of the present 277. The road's superintendent of motive power will move from Tyler to Pine Bluff, Ark.

The I.C.C. order approving the new lease also provided relief from Texas laws which require railroads in that state to maintain shops, offices and records there. Division 4 said compliance with the state and municipal laws in Texas "would hinder economy and efficiency in operation and service to the public."

Securities

Authorization

LOUISVILLE & NASHVILLE.—To assume liability for \$6,765,000 of series N equipment trust certificates, to finance in part 55 diesel units costing an estimated \$8,465,998. Forty-eight of the new units are being built by the American Locomotive Company and the remaining seven by Electro-Motive Division of General Motors Corporation. Division 4 approved sale of the certificates for 99.722 with interest at 3 per cent—the bid of Solomon Bros. & Hutzler and three associates—which will make the average annual cost of the proceeds to the road approximately 3.07 per cent. The certificates, to be dated as of December 15, 1953, will mature in 15 annual installments of \$451,000 each, beginning December 15, 1954. They were reoffered to the public at prices yielding from 2.1 to 3.05 per cent, according to maturity.

SOUTHERN PACIFIC.—To assume liability for \$5,925,000 of series LL equipment trust certificates, to finance in part 1,108 new freight cars costing an estimated \$7,919,306 (*Railway Age*, November 16, page 125). Division 4 approved sale of the certificates for 99.681 with interest at 3 per cent—the bid of Halsey, Stuart & Co. and three associates—which will make the average annual cost of the proceeds to the road approximately 3.07 per cent. The certificates, dated as of November 1, 1953, will mature in 15 annual installments of \$395,000 each, beginning November 1, 1954. They were reoffered to the public at prices yielding from 2.2 to 3.1 per cent, according to maturity.

Dividends Declared

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—common, \$5, semiannual; 5% preferred, \$1.25, quarterly; both payable January 30 to holders of record January 13.

FORT DODGE, DES MOINES & SOUTHERN.—initial payment, 10¢, payable January 5 to holders of record December 22.

NORFOLK & WESTERN.—4% adjustment preferred, 25¢, quarterly, payable February 10 to holders of record January 14.
PITTSBURGH, CINCINNATI, CHICAGO & ST. LOUIS.—\$2.50, semiannual, payable January 20 to holders of record January 8.
READING.—50¢, quarterly, payable February 11 to holders of record January 14.

Security Price Averages

	Dec. 28	Prev. Week	Last Year
Average price of 20 representative railway stocks	57.55	58.49	69.32
Average price of 20 representative railway bonds	90.83	90.96	95.16

New Facilities

Milwaukee's '54 Budget Is \$23 Million

The Milwaukee's 1954 budget for improvements entails expenditure of \$10,534,915 for road property and \$12,630,155 for new and existing equipment—a total of \$23,165,070.

Major improvements to be undertaken during the year include:

- Laying 26,500 net tons of new rail;
- Replacement, renewal or strengthening of various bridges.
- Construction of a new freight office building at Galewood, Ill.;
- Installation of a three-channel carrier communication system between Miles City, Mont., and Seattle, Wash.;
- Purchase of 65 new diesel-electric locomotives (*Railway Age*, December 7, page 17);
- Purchase of 100 70-ton all-steel covered hopper cars (*Railway Age*, August 24, page 14); and
- Purchase of two room sleeping cars (*Railway Age*, July 20, page 21).

The locomotives, freight and passenger cars will involve a total expenditure of \$10.8 million; the rail, track fastenings and ballast an additional \$1.7 million.

Cincinnati, New Orleans & Texas Pacific.—Has ordered from the General Railway Signal Company equipment for installation of a car retarder system, with automatic switching, at Citico yard, Chattanooga, Tenn.

Metropolitan Transit Authority (Boston, Mass.).—Has ordered from the General Railway Signal Company equipment for installation of a remote control interlocking at Tower C, Boston.

Norfolk & Western.—Three new tanks for storing and handling bulk vegetable and animal oils will be constructed at Lamberts Point, Norfolk, Va., at an estimated cost of \$57,000. The tanks—two of 100,000 gal. and one of 155,000 gal.—will be built between present tanks inshore between Piers L and N. Their combined capacity will increase total storage facilities for such oils at that point to over 2,000,000 gal. An additional over-

head 4-in. pipeline to ship berths on Pier L also will be installed. Completion of the steel tanks on concrete bases is expected by next July.

Northern Pacific.—A \$70,000 addition to the freighthouse at Billings, Mont., is being built by the Lowe Construction Company of Billings. The new 43-ft. by 144-ft. extension will be used jointly by the Northern Pacific Transport Company and the Burlington Truck Lines. It will be similar in design to the existing freighthouse, with brick walls and corrugated Transite on steel framing above the doors. One end of the building will house offices, a receiving room and a "warm" room. The truck loading platform will be of the sawtooth type. It will accommodate 11 trucks and will be equipped with rubber bumpers.

Soo Line.—Six new high speed elevators will be installed in the 19-story Soo Line-First National building in Minneapolis. The project is expected to cost about \$400,000 and require until December 1954 for completion. It will be undertaken by the Westinghouse Electric Company's Elevator division. The new elevators will be of the "Select-O-Matic" type which can be operated with or without attendant.

Railway Officers

BANGOR & AROOSTOOK.—**Gordon D. Briggs** has been elected executive vice-president at Bangor, Me.



Gordon D. Briggs

Mr. Briggs has been serving as vice-president, general counsel and clerk of the corporation.

CANADIAN NATIONAL.—**K. Vavasour**, assistant division engineer of the Edmundston division, has been appointed division engineer of that division at Edmundston, Alta., succeeding

E. C. Matthews, who has been appointed division engineer and bridge and building master of the Island division at Charlottetown, P.E.I., to replace **C. W. Milton**, retired.

John F. Davison, engineer of the Southern Ontario district committee on terminal performance, at Toronto, has been appointed assistant to system chief engineer at Montreal. **W. J. Hart**, chief car draftsman, has been appointed mechanical engineer (car). **H. C. T. Boyd** has been appointed assistant chief of research at Montreal.

CHICAGO & ILLINOIS MIDLAND.—**Thomas J. Foley** has been appointed general agent at St. Louis.

CHICAGO & WESTERN INDIANA—BELT RAILWAY OF CHICAGO.—**J. C. Sidor**, assistant to general manager at Clearing, Ill., has been appointed to the newly created position of manager personnel at that point. **C. J. Sokel**, assistant to vice-president and general manager at Chicago, has been advanced to assistant to president and general manager there, succeeding **J. R. Ekholm**, who has been appointed executive assistant to president and general manager. Mr. Ekholm will continue to serve as secretary of both companies. Named to the new post of administrative assistant is **O. H. Wyneken**.

DENVER & RIO GRANDE WESTERN.—**J. J. O'Donnell** has been appointed general agent at Philadelphia and **J. D. Key** has been named general agent at Omaha, succeeding **S. L. Lockwood**, retired.

DETROIT, TOLEDO & IRONTON.—**E. H. McCauley** has been elected to the newly created position of comptroller at Dearborn, Mich. The position of general auditor, formerly held by Mr. McCauley, has been abolished. **W. W. Doyle**, assistant general auditor, has been appointed assistant comptroller.

ELGIN, JOLIET & EASTERN.—**William P. Braker**, assistant secretary-treasurer at Chicago, has been elected secretary-treasurer at that point, succeeding **Daniel J. O'Connell**, who will retire January 9. Mr. Braker will be succeeded by **Raymond B. Zimmerman**, cashier and office manager of the treasury department, who in turn will be replaced by **Harry Landeweer**, assistant cashier and office manager.

GREAT NORTHERN.—**R. R. Manion**, engineer maintenance of way, has been appointed chief engineer, with headquarters as before at St. Paul, succeeding **H. J. Seyton**, who has retired after 44 years of service. **W. J. Cruse**, engineer track, has been appointed engineer maintenance of way.

H. A. M. Whyte has been ap-

pointed assistant to chief mechanical officer at St. Paul, succeeding **R. A. Smith**, who has been promoted to superintendent motive power at Spokane, Wash., replacing **A. B. Colville**, who has retired after more than 55 years' service.

ILLINOIS CENTRAL.—**John P. Moran** has been appointed trainmaster at Fulton, Ky., succeeding **Sebra Evans**, who has been transferred to Memphis, Tenn., to replace **H. A. Rust**, who has been appointed traveling train auditor at Dyersburg, Tenn.

ILLINOIS TERMINAL.—**J. X. Andersen** has been promoted to general traffic manager at St. Louis. The position of freight traffic manager, rates and divisions, formerly held by Mr. Andersen, has been abolished. **Leroy W. Peters** has been appointed freight traffic manager, sales and service (St. Louis area), succeeding **A. S. Taylor**, who has been promoted to assistant general traffic manager. The following general agents have been promoted to assistant general freight agents: **J. M. Fowler**, Cleveland; **E. A. Compton**, Dallas; **R. E. Maloney**, Kansas City and **E. F. Bliss**, Pittsburgh. Their former positions have been abolished. **J. L. Power**, general freight and passenger agent at St. Louis has been appointed special representative—traffic and his former position has been abolished.

MISSOURI PACIFIC.—**Ralph Johnson**, assistant general manager, Western district, at Kansas City, has been advanced to general manager, Southern district, at Little Rock, succeeding **R. C. Williams**, retired. **D. E. Walker**, superintendent, Omaha—Northern Kansas divisions, at Falls City, Neb., has been transferred to the San Antonio and Palestine divisions at Palestine, Tex., succeeding **V. A. Gordon**, who replaces Mr. Johnson as assistant general manager at Kansas City. **T. E. Fox**, assistant to chief

executive officer at St. Louis, succeeds Mr. Walker as superintendent at Falls City.

NEW ENGLAND TERRITORY RAILROADS—FREIGHT TRAFFIC COMMITTEE.—**C. R. Goldrich** has been appointed assistant chairman and tariff publishing agent, at Boston, Mass., succeeding **I. N. Doe**, who has retired after nearly 47 years with New England carriers, the last 25 years as an official of the Freight Traffic Committee and its predecessor, the New England Freight Association.

PITTSBURGH & LAKE ERIE.—**Curtis M. Yohe** has retired as president of the P&LE. **William White**, chairman of the board of directors, and president of the parent New York Central, succeeds Mr. Yohe as president of the P&LE, with the position of chairman being discon-



Curtis M. Yohe

tinued. Mr. Yohe will continue to serve as a member of the board of directors. Mr. Yohe was born in Connellsville, Pa., in 1887 and was graduated from Cornell University in 1910. He joined the P&LE in 1912. After a series of promotions, he was appointed pur-

chasing agent in 1920, becoming assistant to president of the NYC in 1928. In 1929 he was elected vice-president of the P&LE, succeeding his father, James B. Yohe. He became president in 1952.

ROCK ISLAND.—**E. G. Roberts**, stores manager at Chicago, has been promoted to general purchasing agent, succeeding **James C. Kirk**, who retired December 31, 1953. **W. H. Lloyd**, general storekeeper at Silvis, Ill., has been promoted to manager of stores, and **G. F. Jung**, assistant general storekeeper at Silvis, has been named general storekeeper.

Albert F. Hatcher, acting fuel traffic manager at Chicago, has been named assistant general industrial agent. **Louis R. S. Ragot**, assistant general freight agent at Memphis, transfers to Dallas, Tex. Named to succeed Mr. Ragot is **Ernest C. Roth**, traveling freight and passenger agent at Birmingham, Ala.

SANTA FE.—**George J. Handzik**, special assistant at Chicago, has been named manager of special events for the public relations department at that point, and has been succeeded by **George T. Grader**, secretary to general manager.

OBITUARY

D. Y. Smith, 62, chief freight traffic officer of the **Jersey Central** at New York, died December 17, 1953, in Muhlenberg Hospital, Plainfield, N.J.

William B. Prott, tax commissioner of the **Cotton Belt** at St. Louis, died December 22 at his home in that city.

John F. Deasy, 71, retired vice-president, operations, of the **Pennsylvania**, died December 28 at Bryn Mawr, Pa., Hospital, following a long illness. Mr. Deasy became operating vice-president of the PRR in 1933.

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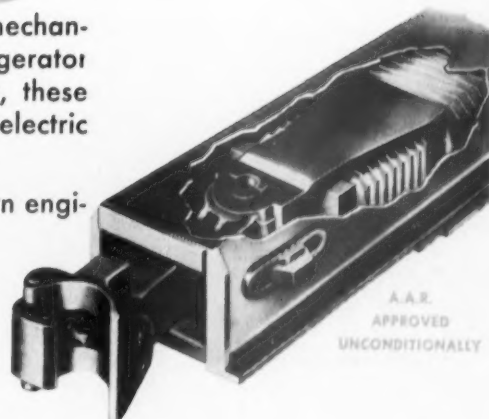
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